DOCUMENT RESUME

ED 299 265 TM 011 837

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TITLE Idaho NTE Core Battery Validation: Study Report.
INSTITUTION Idaho State Dept. of Education, Boise.
PUB DATE Jan 88
NOTE 160p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS Beginning Teachers; Communication Skills; *Content Validity; *Cutting Scores; Elementary Secondary Education; Higher Education; Knowledge Level; *Licensing Examinations (Professions); Professional Training; *State Standards; *Teacher Certification; Teacher Qualifications; *Test Validity
IDENTIFIERS Idaho State Department of Education; *National Teacher Examinations

ABSTRACT

The content validity of the National Teacher Examinations (NTE) Core Battery tests of communications skills, general knowledge, and professional knowledge was examined to determine whether this commercially available test was suitable for initial teacher certification in Idaho. Focus was on recommending adoption scores (cut scores) to the State Board of Education. Three questions were asked about the Core Battery: (1) job relevance; (2) content review (whether beginning teachers had a chance to learn this material); and (3) knowledge estimation, judged by what minimal scores should be required. Three panels of educators from the elementary/secondary (N=50) and higher education (N=40) levels were organized. Judgment data were analyzed for the 88 participating panelists. The battery was considered very relevant for communications skills and professional knowledge, and relevant for general knowledge. Content review found communications skills and general knowledge closely related, with professional knowledge acceptably related. Quantitative results were examined or modified by the Idaho Professional Standards Commission to establish the following recommended passing scores on the NTE Core Battery: (1) communications skills, 652; (2) general knowledge, 646; and (3) professional knowledge, 648. Numerous tables summarize panel findings. Eighteen appendices illustrate the evaluation process and present the research instruments used. (SLD)

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Idaho NTE Core Battery Validation: Study Report

January 1988

by

Alan G. Zetler
Validator

Acknowledgements

The Idaho validation study provided an outstanding example of how various facets of the educational establishment can cooperatively function. The state made a significant decision when it adopted certification testing and only the mutually supportive efforts of many persons and agencies brought the process to completion.

Special recognition is extended to the following for their assistance: Darrell Loosle, Roy Lawrence and Glenda Sheldon of the State Certification staff; Richard Peterson of the ETS Western Regional staff; Rob Nicholson of the Idaho Education Association, Chairperson Sue Mousseau and the members of the Professional Standards Commission, and Peggy Zetler who did the word processing and document formatting. Finally, appreciation is in order for the state's professional educators from elementary through higher education. Their willingness to work and lend expert judgment made the validation possible.

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Chapter I

INTRODUCTION

1. Legal and Educational Rationale

Effective September 1, 1988 applicants for initial Idaho teaching certification must submit minimal passing scores on the Core Battery of the National Teacher Examinations. This regulation appears as State Board Rules and Regulations IDAPA 08.02.C.17,2 titled Initial Professional Certification Examination (Appendix A). Educators seeking certification in the state will find the new regulation added to qualification criteria already in place.

The action of the Idaho State Board of Education imposing a certification test as a condition of employment within its jurisdiction is legally justified providing certain conditions are met. It must be shown that the test used is appropriate for its intended purpose and that passing scores have been empirically formulated. An occupational test must exhibit a relevant connection to the job plus show evidence that job applicants have had an opportunity to learn the content being tested. "Validation" is the procedure utilized to demonstrate that these demands have been satisfied.

Court decisions and federal regulations have expressly defined the options available for making validation legally sound. These guidelines have their basis in established educational measurement practice.

2. General Description of Validation

Validity studies are conducted for a specific purpose and the results are applied to a specific population. Studies are also limited to a chosen test instrument and the purpose for which the test was constructed.

Educational measurement classifies test validity into three types; content or curricular, construct, and criterion or predictive. The Idaho study was an exercise in content validity. As such, it examined the objectives of the Core Battery, the test content and a sample of the test items in order to judge whether this commercially published national test instrument will do for initial Idaho certification what it purports to do.

3. Validation Study Purposes

Three areas of preparation common to teacher education programs are tested with the Core Battery. Separate examinations of a candidate's academic background are used to assess proficiency in communication skills, general knowledge and professional knowledge. Panels of professional educators are convened for the purpose of answering three questions about the intended use of the NTE Core Battery for initial Idaho certification.

1. Is the content tested by the NTE Core Battery relevant to the job performed by beginning teachers in Idaho?

2. Will candidates taking the three examinations have

had an opportunity to learn the content covered by the tests? Alternatively the question could be one of matching test content against the curricula found in Idaho teacher preparation programs.

3. What minimal scores should the State of Idaho require on each of the three tests for initial certification purposes?

These questions comprise the three primary tasks that a content validity study seeks to address. The tasks are given the respective names of job relevance, content review and knowledge estimation. The professional panels selected to address the three tasks are given the same names to describe their functions.

4. General Design of the Study

Validation studies take place prior to enforcement of findings or results. This is necessary because no normative data have yet been generated by the specific population impacted. This may seem a premature supposition to some, but there really is no other alternative. The process is legally justified when the judgments of expert personnel are used to determine the minimum criteria or passing score levels.

A group of ninety (90) Idaho educators from the elementary/secondary and higher education levels was selected to render their expert judgments. These panelists were a representative sample of certified, active practitioners in the schools and representatives of university and college faculty responsible for teacher preparation.

Data were collected from the panelists which was then used to answer the three questions of job relevance, content review and knowledge estimation. After analysis, the study results were interpreted by the Idaho Professional Standards Commission (PSC), leading to recommended minimum qualifying scores for State Board of Education consideration.

Specifics of the research design were approved in August 1987 by the PSC before proceeding with the study. Design details appear in this study report as Chapter III.

5. Description of the Core Battery

Educational Testing Service (ETS) develops, publishes, and administers a large array of instruments used in educational measurement. Among those are a set of tests known as National Teacher Examinations, or NTE Programs. One NTE component is the Core Battery, specifically planned to measure abilities normally associated with teacher preparation programs.

The Core Battery tests three broad areas of preparation; communication skills, general knowledge and professional knowledge. Each area is divided into subtests reflecting subject disciplines or discrete skills. Five editions of the Core Battery exist, all with consistent objectives and approximately equal percentages of content emphasis. The sampling of items, of course, varies among the five forms. Thus, validation of one test edition serves to validate all editions. The first, or "Released Edition", was subjected to validation in the Idaho study.

Communication Skills provides a single score based on the combined performance on subtests of Essay Writing, Listening, Reading and Multiple-choice writing. General knowledge is likewise a single score, composed of subtests in Literature and Fine arts, Mathematic, Social Studies and Natural Science.

Professional knowledge has three subtests, also combined for a single score, which measure the foundations of American education plus the skills and knowledge taught in methods and behavioral science courses.

6. Limited Study Application

ETS is very explicit about what the Core Battery was designed to accomplish and what it was not designed to do. NTE Policy Council statements govern proper test use and address potential misuse. As long as Core Battery results are used only for the stated purpose of the study, the validation process should ensure that the battery is appropriate.

A restatement of validation study purposes is in order:

> The Idaho validation study was conducted for the purpose of formulating recommendations to the State Board of Public Education on the use of the NTE Core Battery for initial Idaho certification as stated in State Board Rules and Regulations IDAPA 08.02.C.17,2. Judgments of job relevancy and content review have been combined with knowledge

estimation to create recommended minimal passing scores (cut scores). The NTE Core Battery is a test of acquired knowledge and skills commonly found in teacher preparation programs and is not a measure of teacher performance. Application of the Core Battery in Idaho is limited to the validation purpose described in this study document and is consistent with the Guidelines for Proper Use of NTE Tests published by the NTE Policy Council.

Chapter II

REVIEW OF THE LITERATURE

1. Introduction

Any state deciding to adopt a test for certification places itself into a necessary arena of legal and educational justification. Certification examinations are but one type of employment test, and as such, fall under a broad umbrella of guidelines and precedent. Candidates who fail to reach minimum cut scores on the Core Battery tests become unqualified for certification. Aside from the personal disappointment, unsuccessful individuals need to be assured that the scores they failed to attain were not arbitrarily established nor were other doctrines of fairness violated. The state, on the other hand, needs to feel confident that cut scores represent a high enough threshold to assure a meaningful level of competence. The state also needs assurances that test performance results from demonstrated knowledge and not from other unintentional factors.

Challenges to the use of tests as a condition of employment normally arise from alleged violations of either (a) due process and equal protection under the U.S. Constitution or (b), Title VII of the Civil Rights Act of 1964. The plaintiff may challenge the test itself, may assert a flawed procedure was used to set qualifying scores, or may charge that test results are being misused by employers.

It is critical that the Idaho State Board of Education, being the responsible agent, adopt qualifying scores that can withstand legal challenge. The purpose of this chapter is to describe case law precedents and the educational justification that underlie the Idaho validation study. Where possible, the study design followed proven and defensible procedures used in previous validations by other states. Circumstances unique to Idaho were presented to the PSC for decision making. Modifications of established precedent were minor, while staying within legal and educational parameters.

There is an implicit caution that should be remembered. Legal and precedent justification for the Idaho study applies only to the intended and stated purpose for which the project was undertaken. To make claims outside this narrow band of application would be in error.

2. Employment or Occupational Tests

It is well established that individuals in American society should have an opportunity to seek employment in any occupation if qualified for available positions. Employers determine what the qualifications should be. Problems arise when requirements adversely impact a classification of job applicants, creating a situation of discrimination. The adverse impact may be intentional or unintentional.

Employer defendants in court cases must show that no discrimination was intended by the job qualification. If in fact the requirement resulted in unintentional discrimination against minorities, the qualification in question must be justified by "business necessity." (EEOC, 1978) The Supreme Court concluded in the 1971 case of Griggs v. Duke Power Company (1971) that a test required for employee selection was not unlawful in itself, but that the use of the test for selection violated Section VII of the 1964 Civil Rights Act because the instrument was not shown to be a business necessity. The act prohibits discrimination in employment practices on the grounds of race, color, religion, sex or national origin. These classifications define the minority groups protected by the legislation.

Thus it was that testing as a condition of employment came under the legal guideline that demands tests be job relevant. The consequence of Griggs was that Title VII was amended by Congress one year later to make explicit the concept of business necessity. The federal register stated in 1978 under Uniform Guidelines for Employee Selection Procedures that "business necessity...normally means it (employer) must show a clear relation between performance on the selection procedure and performance on the job. In the language of industrial psychology, the employer must validate the selection procedure" (1978).

3. Test validation

Rules and regulations appearing in the Federal Register of August 25, 1978 undertake a description of validation, drawing heavily on the American Psychological Association (1985) for counsel. An employer can, of course, eliminate the selection procedure causing the disparate impact. Should the selection criterion be retained as a business necessity, validity can be established by one of three options, i.e. content, construct or criterion validity studies.

Content validity has become the procedure of choice although there is no proof that it is superior to the other two methods. New York (ETS, 1983), Kansas (1984), Maine (1984) and Montana (1986) are among approximately 19 states that have performed content studies for certification test validation. Masonis at ETS in 1985 drafted a manual for content validity studies that was supplied to study directors for guidance (ETS, 1985). All states since 1977 have used panels of professionals to generate judgment data when content validity studies were conducted. All have been consistent with Federal EEOC guidelines. ETS, as test publisher and administrator, cooperates in giving advice as it is in their interests if state-by-state studies are legally and educationally defensible. Idaho procedures are consistent with standard validation practices.

4. NTE Certification Tests in Court

The watershed case involving NTE tests for certification occurred in South Carolina during 1977. The state's test requirement was challenged and successfully defended, eventually being upheld by the U.S. Supreme Court.

Important for subsequent validity studies were several opinions rendered by the federal district court panel that heard United States v. South Carolina (1977).

1. The state can use the NTE to certify its teachers.
2. "The state has the right to adopt academic requirements and to use written tests designed and validated to disclose the minimum amount of knowledge necessary to effective teaching." (ETS, 1982)
3. The NTE tests in South Carolina did not discriminate on the basis of race, nor was there any intention to do so.
4. The NTE test was shown to possess content validity because of a validity study conducted for the state by ETS. The panel method of generating judgment was used in the validation.

NTE tests have since been in court. The message sent by the pattern of cases during the 1970's period was that misuse of test results will not be defensible. Conversely, the denial of employment because of low tests scores will be upheld providing established testing principles and validation are followed.

In summary, the courts have created the following procedural precedents for jurisdictions planning to use a test for teacher certification:

(a) If a test constructed specifically for a state is not used, a reliable standardized instrument is acceptable.

(b) A validity study must be conducted relative to the intended use of the test and the population it will eventually impact.

(c) The judgments of recognized experts (practicing teachers, teacher educators) acting as panels is an acceptable means of generating data to validate tests.

(d) If content validity is used, it must contain procedures designed to assess the job relevancy and content appropriateness of the test.

(e) The results of the test can be uniformly applied to all groups, including minority applicants, assuming the application is limited to the stated purpose.

5. Standard Setting

Recommended minimal scores on the Core Battery for Idaho have been generated by an established procedure known as "standard setting." The term as used in the present context is defined as the probable test performance of minimally qualified Idaho certification candidates as determined by the pooled judgments of professional Idaho educators. The process of estimating the knowledge level was earlier referred to as knowledge estimation.

Standard setting, like other aspects of validation, has ample precedent. Livingston and Zieky (1982) published a manual on standard setting, describing the procedure which was used in the Idaho study. The " Tucker/Angoff" method, is an acceptable method by which to estimate knowledge from multiple-choice test items, the type with which the Core Battery is constructed. The exception is the essay subtest within Communication Skills which is translated to a numerical Communications component using a process also suggested by Livingston and Zieky.

Other standard setting procedures may in time become accepted, but at this time, methodology for the Idaho study made use of the established Tucker/Angoff method with minor modification. The details of the standard setting process are described in chapter V, "Analysis of Data."

As was the case in the recently completed Montana validation, a statement by ETS justifies the standard setting model employed in Idaho (ETS 1983):

> "The standard setting studies reviewed here do not suggest that any one panel review approach is superior. It does support the continued use of the Tucker/Angoff approach, however, because that method demonstrated reasonable psychometric properties, because it is relatively easy to apply, and because it capitalized on a decision-making approach that is similar in many ways to the one used by teachers in their normal professional activities."

6. Effect of Certification Testing on Minorities

Idaho became the twentieth state to adopt the NTE Core Battery as a certification requirement. Including other tests, twenty-nine (29) states test certification candidates. Because of equal opportunity and civil rights, the impact of certification testing on minorities has become a legal issue because of disparate impact. The pattern of court decisions has recognized the consequences, but has upheld test usage providing the tests have been appropriately validated.

Test usage is having a drastic effect on the number of racial minorities being certified. Will Idaho be affected? That issue is a matter of conjecture, given the very small minority teacher population of less that two percent (2%) in the state.

As will be explained in the formation of the validation panels, efforts were made to insure that minority teachers were represented in proportion to known numbers. But if

Idaho has experiences like other states, minority teachers becoming newly certified can be expected to drop to even smaller numbers. The issue may never arise within a legal context. Nevertheless, some discussion of racial minority impact is in order.

Enough research has been done to indicate that test passing rates will be attained by racial groups in the following descending order: Whites, Asians, Hispanics, Native Americans and Blacks. According to Rudner (1987), the passing rates on the California and Florida certification tests were as follows:

Table 2-1

Passing Rate Percent in California and Florida

	White	Asian	Hispanic	Black	
California	76	50	39	26	(1st CBEST Test 1983)
Florida	90	63	51	35	(1983 Florida Teacher Exam)

Smith (1984) and Garcia (1985) have documented minority impact and its implication for teacher preparation enrollments and certification. The irony in the pattern is that minority students in the nation's schools will soon surpass one-third of total enrollment. California's non-white pupils are projected to be over one-half of the state's public school population by 1995 according to State Department figures (Rudner, 1987).

Asian and Hispanic teachers comprise the largest non-white minorities among currently certified Idaho educators. Both groups number less than one percent (1%). Whether they are concentrated with the minority pupils in the Snake River region from Twin Falls to the Oregon state line is not known. With growing population in the region, future monitoring of minority teachers might shed more light on whether minority impact by testing is a significant feature of Idaho certification. It becomes a legal factor if minority population numbers rise to two percent (2%) or more (EEOC 1978).

Chapter VII, "Interpretation of Results", gives additional information on passing rates by state. The presence or absence of large minority populations may be a factor in the percent of applicants attaining minimum cut scores. The state Board may wish to consider this perspective when adopting Idaho minimums on the NTE Core Battery.

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Chapter III

RESEARCH DESIGN

The design for the Idaho validation study was drafted in July 1987. Proposals were submitted to ETS headquarters in Princeton, New Jersey, to the Western Field Representative of ETS in Oakland, California, and to the Idaho Professional Standards Commission in Boise, Idaho. The validator received suggested revisions by phone from Princeton. A meeting was held with the Idaho PSC with the ETS Field Representative in attendance. At that meeting, the PSC made decisions on procedural points plus determining the panel population variables to be controlled in the study. The seventeen (17) member PSC was established by the Idaho State Legislature in 1972 and is advisory to the State Board of Education. Decisions on the validation study were an appropriate function of the Commission under its published procedures manual (Idaho PSC 1983).

Input resulted in a PSC approved research design dated August 4, 1987. The two involved ETS staff gave verbal approval. The remainder of chapter III is a post facto description of the approved design.

1. Introduction

The Idaho State Board of Education has mandated, effective September 1, 1988, that applicants for initial

Idaho certification must receive minimal passing scores on the Core Battery of the National Teacher Examinations. Validation of those examinations addressed legal and educational requisites created by the battery as a condition of professional certification. The study was an undertaking in content validity designed to generate appropriate recommendations for State Board consideration. Application of the validity study was limited to professional certified school personnel in Idaho for the purpose of initial certification.

Panels of practicing Idaho educators rendered judgments aimed at addressing three validation questions:

1. Is the content tested by the NTE Core Battery relevant to the job requirements of a beginning teacher in Idaho? (Job relevance)
2. How well does the content measured by the NTE Core Battery match the content that teacher education students in Idaho will have had an opportunity to learn? (Content Review)
3. What scores should the state expect of a minimally qualified candidate on the tests of Communication Skills, General Knowledge and Professional Knowledge? (Knowledge Estimation)

2. Procedures For Conducting The Validation

The study consisted of the following five steps in order of execution:

1. Panel Formation: Three panels were organized, each addressing one of the validation questions. A job relevance panel consisted of a representative sample of active elementary and secondary Idaho educators. A content review panel came from the six teacher education institutions. Members of the job relevance and content review panels combined to form a larger knowledge estimation panel which had the responsibility of

generating empirical data used in determining study scores for the three battery tests.

2. Panel Meetings and Data Collection: Panelists convened at one of three sites nearest their residence during October 1987. The single form validation process made use of the released edition of the NTE Core Battery.

3. Data Analysis: Data generated at each panel meeting was combined for analysis. Using accepted procedures with legal and educational precedent, the judgment data were analyzed with appropriate correction factors applied.

4. Interpretation of Analysis Results: Quantitative results were examined and/or modified by the Idaho Professional Standards Commission (PSC) for the purpose of establishing recommended passing scores to submit to the State Board of Public Education.

5. Full Report of the Idaho NTE Core Battery Validation: A complete study report was written for the state Board including background, literature review, study design, execution of the study, data analysis, interpretation, recommendations to the Board and exhibits.

3. Details of Design Procedure Steps

(a) Panel Formation

The job relevance panel of fifty (50) members was representative of the Idaho population of certified professionals actively employed in the state's public and accredited private elementary and secondary schools in instructional, administrative or pupil personal services during 1986-87. Qualifications of panelists were determined by the PSC. Selection of job relevance panelists was effected through: (a) a nomination procedure in which names of prospective members were solicited from selected sources, such sources chosen by the PSC; (b) a response form returned by those nominees willing and able to serve. (c) A random selection process in which the fifty panelists were drawn from the pool of individuals responding positively via the response form. Biographical information requested on the response form was determined by the PSC and the chairperson assisted with the randomizing procedure.

Controlled variables in the sample selection process, consistent with documented Idaho education demographics, produced panel characteristics proportional to the 1986-1987 actual employee statistics. The variables were male-female, majority and minorities by race/ethnicity, regional representation, school professional activity (teaching, administration or pupil personnel services) and instructional service level (elementary-secondary).

Forty (40) higher education professionals served as a content review panel. The number from each of the six Idaho public and private teacher education institutions were as follows: Boise State University - 10, College of Idaho - 4, Idaho State University - 9, Lewis-Clark State College - 4, Northwest Nazarene College - 4, University of Idaho - 9. The Dean/Director of Education at each university or college had the responsibility for internally appointing those persons felt to have the necessary perspective for content review on all three tests. The three state universities each invited one representative from the Community/Junior College in their respective service areas to be a member of the university team.

Participation of minority faculty was encouraged. Content review panelists submitted a biographic response form.

A knowledge estimation panel of ninety (90) members was formed by combining the job relevance and content review panelists. Thus, each professional had either job relevance or content review responsibility in addition to knowledge estimation.

(b) Panel Meetings and Data Collection

Panelists attended one of three meetings held in the southeastern, southwestern and northern regions of the state: Pocatello on October 19, 1987, Boise on October 21 and Moscow on October 26. Meetings began with a period of instruction by the project director and lasted until late afternoon. Panelists reviewed each item on the released edition of the Core Battery, performing either job relevance or content review first and then immediately estimating a knowledge percentage.

Each of the ninety panel members made judgments about every item in the Core Battery. Panelists also assessed a number of sample essays.

Other judgments additionally rendered by panelists dealt with perceived test bias, omitted topics and test emphasis. These decisions supplied information helpful in test interpretation. To compensate for possible fatigue, the time at which each of the three tests was examined was staggered among the three meeting locations.

Mileage and per diem was paid by the project, with home districts or institutions asked to cover the cost of substitutes. The number of panelists per meeting site varied according to the state population clustered around each of the three locations.

Each meeting accommodated a few non-participating observers. These persons were authorized by the PSC.

(c) Data Analysis

Data collected from each meeting was combined as a single base for analysis. Panelist's judgments were recorded on prepared forms (See appendices J and L). Frequency distributions, means and standard deviations were calculated using the DEC VAX computer at Western Montana College, Dillon, Montana. Panel judgments appeared in the following formats:

> Job Relevance: Frequency distribution for each item and subtest on a scale of four possible relevance responses, matching test content against needs of a beginning teacher in Idaho.
>
> Content Review: Frequency distribution by item and subtest judged according to three possible matches of test content against the content that Idaho teacher education students will have had the opportunity to learn.
>
> Knowledge Estimation: Frequency distribution by item and subtest showing the percent of minimally qualified teacher candidates expected to know correct answers. Mean and standard deviation by item and subtest of the same percentages were computed.

Essays were judged for job relevance and for content match. In addition, the essays were appraised as passing or failing, the results then translated to a minimal writing level which in turn became a factor in the

Communication Skills score.

The project validator utilized appropriate procedures, weighting and correction factors as given in Masonis' draft Manual For Doing Content Validity Studies of NTE Programs Tests (ETS 1985). What will be referred to as "study scores" for Idaho using the scaled scoring system for the Core Battery resulted.

(d) Interpretation of Analysis Results

Interpretation of Idaho validation study scores had as its ultimate purpose the recommendation of adoption scores (cut scores) to the State Board of Education. The PSC convened in order to examine study scores and to consider modifying them because of qualitative factors.

It was the responsibility of the PSC to utilize its collective knowledge of educational measurement, the state's educational climate, cut score impact on Idaho certificate candidates or other appropriate concerns in order to finalize recommended scores.

The validator presented information to the PSC on the topics of comparative state scores, the standard error of measurement, expected pass/fail rates, minority impact and longitudinal considerations.

(e) Full Report of the Idaho NTE Core Battery Validation

Prior to the State Board meeting in early 1988, a full report of the Idaho validation was written and submitted to the PSC and Board. The report was in sufficient detail so a replication of the study could be conducted. Together with the raw data and panelists' response forms left in custody of the PSC, the study analysis could be duplicated.

Finally, in event of litigation, this project report and associated material can be a significant document for the state if its adopted NTE Core Battery scores are challenged.

References Cited

Idaho Professional Standards Commission: Procedures Manual 1983-84, January 1983. Available from PSC Administration at State Department of Education, Boise, Idaho

Educational Testing Service. A Manual for Doing Content Validity Studies of NTE Program Tests, Draft. Princeton, N.J., Educational Testing Service, 1985. Authored by ED Masonis.

Chapter IV

EXECUTION OF THE STUDY

1. Panel Formation

Some six hundred twenty eight (628) letters soliciting panel nominees were mailed to educators and agencies in Idaho. The selection of letter recipients was made by the PSC. The purpose of such wide solicitation was to make every opportunity available for educators who might serve as panelists. Both public and private sectors were approached covering all levels, elementary through higher education. A classification summary of the individuals/agencies targeted for correspondence appears as Appendix B.

2. Job Relevance Panel Pool

Agencies and individuals representing elementary and secondary level schooling received the bulk of solicitation mailing. Of all letters, 52 were for non-public representation with the remainder sent to public schools or to professional associations.

Nominations were accepted by return mail or by telephone with proper caller identification. A number of duplicate names were received, but were counted as only one nomination. The letter used to request nominees appears as Appendix C. In order to quickly describe the validation procedure, a brief titled Validating the NTE Core Battery for Idaho: Why and How was included with the request (Appendix D). One important point was made on the information sheets: panelists would have to work on all three tests in job relevance on content review plus knowledge estimation capacities.

The request for names resulted in 756 different nominees after eliminating duplication. An alphabetical listing of professionals named and their districts or towns constitutes Appendix E.

Each nominee was sent a response form which, if returned, indicated a willingness and ability to become part of the pool from which 50 job relevance panelists would be selected. Biographic information on the response forms was used to classify respondents into the selected panel variables (Appendix F). Respondents had the option of not marking biographic categories without being subtracted from the pool.

A total of 396 persons returned usable response forms, a return rate of 52 percent. Any forms arriving after the deadline postmark date were not included in the pool because selection of the job relevance panel took place immediately afterwards. Also, nominees were to come from 1987-88 contracted professionals holding current Idaho certification. Respondents not meeting those qualifications were discarded.

3. Job Relevance Panel Selection

Response forms were first separated according to region in the state (north, southwest and southeast). The PSC chose to control that geographic variable. Next, within each region, respondents were separated according to a second controlled variable, school professional activity (teaching, administration or pupil personnel services). Response sheets were then numbered consecutively within the regional classes.

At the time, there was no concrete data available on the number of minority professionals existing within the 1987-88 contracted population. A figure commonly accepted by State Department Officials was that Idaho's general population contained a three percent (3%) Hispanic minority. With this number as an assumption, a preliminary attempt was made to find at least one Hispanic teacher and place him/her on the job relevance panel as a third controlled (racial) variable. By hand sorting, one declared Hispanic teacher was found and was assigned to the panel. Through the cooperation of the Idaho Education Association, racial counts were later made available by which minority representation could be more accurately gauged.

Selection of the remaining 49 job relevance panelists then proceeded using a table of random numbers. The details of the random process are found in Appendix G. The chairperson of the PSC, two certification officers and the validator performed the random selection.

To control the regional and school activity variables, the following sequence was used: First, 15 persons were selected randomly from the northern region, 20 from the southwest and 15 from the southeast. Second, within regions, selection was made from the ranks of teachers, administrators and public service personnel until the proper numbers were chosen proportional to actual state figures. One administrator and one pupil service professional came from each region. Since one southeast person had already been chosen, the region from which that teacher came had its random teacher selection reduced by one.

Within regions, there was no attempt made to control for school size. Since each district had a nomination opportunity, it was felt that district enrollment would not create bias.

After random selection, numbers chosen within the five variables were compared to available statistical reports (Idaho 1987). Chi-square tests performed on the variables showed all five to be within non-significant ranges for the observed/expected differences that did occur. Classification of Idaho professionals by race, according to information later supplied by the NEA and IEA (Idaho Education Association) confirmed that the hand selection plus random selection resulted in racial minority representation very close to actual statistics (IEA 1987). Table 4-1 shows the comparison between ideal and chosen numbers for the five population variables.

Table 4-1
Idaho Job Relevance Panelists Classified
Into Five Selected Variables. N=50

Variable	Idaho %	Panelists Planned	Panelists Chosen
Gender			
Female	63.21	32	32
Male	36.79	18	17
Race/Ethnicity			
White	98.11	48	48
Hispanic	.84	2	1
Asian	.65	0	1
Native A.	.32	0	0
Black	.07	0	0
State Region			
Northern	30	15	15
Southwest	40	20	20
Southeast	30	15	15
School Prof. Activity			
Teachers	87.25	44	44
Admin	6.87	3	3
Pupil/Service	5.83	3	3
Other	.04	0	0
Instructional Level			
Elementary	52.41	23	22
Secondary	47.59	21	22

12,118 professionals were actively employed and certified during 1986-87

Several aspects of Table 4-1 are worthy of special mention. It could conceivably be argued that at least one person from each racial minority should have been on the panel. Short of that appointment, could the random selection process have produced such a distribution? Probably not, given the probabilities and the actual numbers of responding minority individuals shown in table 4-2.

Table 4-2

Total Individuals Responding to Nomination by Race

Category	No. Responding
White	387
Hispanic	2
Asian	4
Native American	1
Black	1
Other or no race specified	5

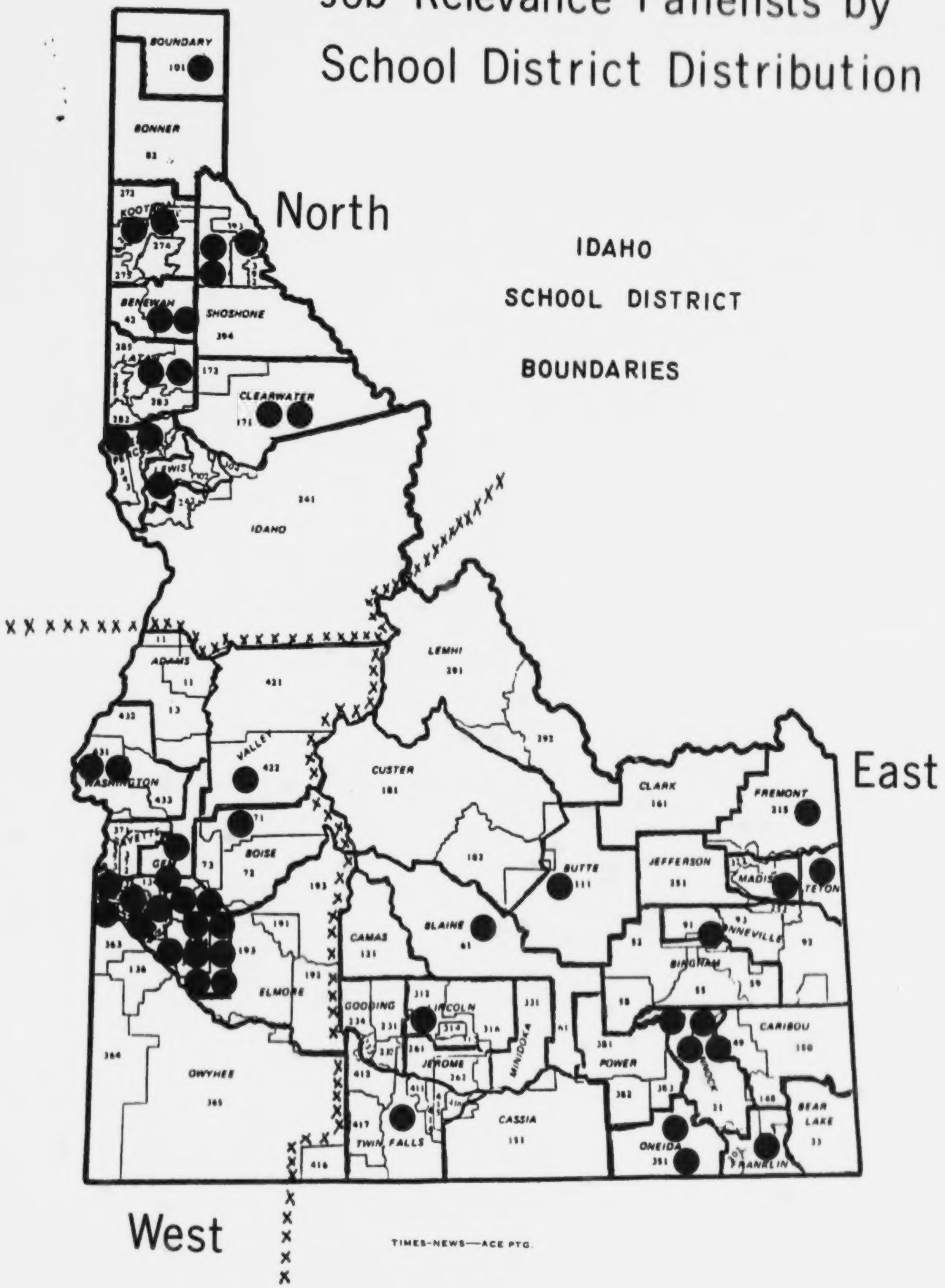
The division of the state into the three regions was arbitrary and based on county boundary lines. There is some justification for drawing the borders based on traditional patterns of travel to regional meetings by such groups as school administrators. Consequently, The PSC made an estimation of the percent of educators working in the three regions and then established the 15-20-15 representation. Districts or towns from which participating job relevance panelists came are mapped as figure 4-1.

4. Content Review Panel

Forty (40) higher education professionals from Idaho's public and private teacher preparation institutions were selected to the content review panel. Nominating faculty or administrators is usually more difficult in this case because of smaller numbers and the problem of finding individuals with knowledge about the total college or university teacher education program. Higher education

Figure 4-1

Job Relevance Panelists by School District Distribution


IDAHO
SCHOOL DISTRICT
BOUNDARIES
North
East
West
BOUNDARY
101
BONNER
82
KOOTENAI
273
274
BENEWAH
42
SHOSHONE
394
LATAH
283
CLEARWATER
171
LEWIS
IDAHO
241
ADAMS
11
431
432
WASHINGTON
433
VALLEY
422
BOISE
72
GEM
LEMHI
291
292
CUSTER
181
CLARK
161
FREMONT
215
JEFFERSON
251
MADISON
TETON
BUTTE
111
BLAINE
61
CAMAS
121
ELMORE
BONNEVILLE
93
BINGHAM
55
CARIBOU
150
GOODING
LINCOLN
JEROME
261
MINIDOKA
POWER
381
BANNOCK
OWYHEE
365
364
CASSIA
151
TWIN FALLS
ONEIDA
351
FRANKLIN
BEAR LAKE
33
TIMES-NEWS—ACE PTG.

faculty tend to be much more specialized. Therefore, the Deans/Directors of Teacher Education were asked to appoint representatives from their institutions who could address all three areas of the Core Battery. Other than encouraging minority consideration, the colleges and universities were given complete freedom in their choices. As was the case for job relevance, potential members received information stating they would be responsible for content review and knowledge estimation in all three test areas (Appendices C and D).

The PSC deliberated the size of the content review panel and the breakdown of representatives among the six institutions. How many panelists per college was decided primarily on the basis of (a) teacher production and (b) a minimal critical mass necessary to adequately represent the campus-wide view. The decision on 40 panelists instead of an even split with the job relevance group was due to the relatively small numbers of baccalaureate graduates. Idaho currently certifies 45% of its new teachers each year from out-of-state. Keeping the in-state content review panel somewhat smaller would give some benefit of doubt to teachers prepared out-of-state. This attitude would be most significant on the knowledge estimation function also performed by the college content reviews.

Idaho has three junior colleges, one each within the service and transfer areas of a state university. The universities are responsible for the content knowledge of transfer students even though the first two years are not their direct responsibility. It was therefore felt by the PSC that university - junior college perspective would be mutually enhanced if one member of the university team came from the nearly two-year college. Under this arrangement, Ricks College was represented with Idaho State University, College of Southern Idaho with Boise State University and North Idaho College with the University of Idaho. Table 4-3 shows the allocation of content review panelists among the four public and two private teacher education institutions.

Table 4-3

Idaho University and College Personnel
Serving as Content Review Panelists

Institution		Number of Panelists
Public		
*University of Idaho		9
*Idaho State University		9
*Boise State University		10
Lewis/Clark State College		4
Private		
The College of Idaho		4
Northwest Nazarene College		4
	Total	40

* One member from a junior college

There was a tendency for higher education to select professors from departments/colleges of education. This pattern was expected, as it has often happened with validity studies in other states. ETS has stated that professors who work with student teachers often possess the generalized knowledge of campus offerings - a factor important in content review.

5. Knowledge Estimation Panel

Knowledge estimation was a second function performed by both job relevance and content review panelists. This was made possible by combining the 50 and 40 members selected for the respective panels into one larger group. This method did not involve any physical rearranging or reconvening of different meetings. Rather, the sheets on which panelists recorded their responses were designed to allow an estimation of knowledge on a test item immediately after job relevance or content review was marked.

The 90 member knowledge estimation panel roster was simply the sum of the two panels previously described across the three locations. There is rationale for employing this combined panel method in rural areas. First, states with large land areas containing low population densities experience financial and logistical problems in the assembly of panels. Second, educators tend to be generalists by necessity due to the multi-faceted responsibilities inherent in smaller school districts and colleges. Third, if single subject panels were used, the pool of specialists available for each would be limited in low population states. Fourth, The combined panel process has been successfully demonstrated in a similar rural states like Texas, New Mexico, Arizona and Montana. Fifth, funds available for the study were limited.

The combined panel approach can be criticized on several grounds. The validation day becomes long with a full six to eight hours of intense work; fatigue becomes a factor in the afternoon, and individuals may be somewhat unfamiliar with the content of certain subtests.

Compensating actions were taken to minimize negative effects: (a) Three identical validation meetings were held to minimize travel, (b) overnight lodging and meals were available and paid for by the state, (c) the time of day that each of the three tests was worked on was varied among the three meetings, and (d) care was taken to inform nomination sources and potential panelists of the comprehensive/generalists perspective needed on the part of panel members.

6. Panel Meetings

Panelists met at one of three regional locations:

Pocatello - October 19, 1987
Boise - October 21, 1987
Moscow - October 26, 1987

The three meetings were conducted in identical fashion, with the staggering of test times the only variance. The same agenda was used at each meeting, each beginning with a period of training and orientation (Appendix H). Planning called for 24 panelists at Pocatello, 38 at Boise and 28 at Moscow. Among the three sites, only one job relevance and one content reviewer were unable to participate because of last minute problems. During the period between panel selection and meeting dates, some individuals had to relinquish their appointments. As per instructions, these people informed the PSC administrator and were replaced by alternates chosen by random selection during the August panel formation meeting. Alternates possessed the same five population characteristics as the individuals they replaced.

Eighty-eight (88) panelists participated out of the planned 90 members, a rate of 97.77%. The two absentees were one white male and one white female and did not cause any significant change in the population variables noted in table 4-1. Rosters of panelists who authorized release of their names by meeting location are found in Appendix I.

Meetings convened at 9:00 AM with a one hour training session. Job relevance and content review groups then assembled in separate rooms for the remainder of the day. Each test item was first judged for job relevance or content appropriateness and then for knowledge estimation before considering the next item. This sequence, the procedure used in the 1985 Montana study, was first suggested by Echternacht at ETS. Sample essays were evaluated within the Communication Test period. All evaluation procedures are explained in Chapter V "Analysis of Data."

Space was available on response sheets for panelists to check and comment on any items thought to be biased against any classification of future teachers. Written comments concerning omitted test content and general comments were solicited.

At the conclusion of content review and knowledge estimation, higher education personnel convened by institution and determined relative emphasis. This procedure compares the content and percent of each subtest objective specified for the Core Battery against the emphasis the teacher education programs place on those objectives.

Six observers followed the validation meeting procedures. All participated as if they were actual panel members for all or part of the day. Of course, their responses did not enter the database. Observers represented organizations within Idaho who have an interest in teacher certification, including school administrators, school principals, school boards, PTA and the PSC itself.

References Cited

Idaho State Department of Education. Annual Statistical Report, Public School Certified Personnel and Employees in Noncertified Positions 1986-87, Boise, February 1987.

Chapter V

DATA ANALYSIS

Panelists recorded their judgments on prepared response sheets (Appendices J and L). Data generated at each of the three regional meetings were combined as if produced by a single large group. Population variables used to insure proportional panel representation did not enter into any of the analyses. Initial data analysis for job relevance, content review and knowledge estimation was done on the DEC VAX Computer at Western Montana College using a program written by Mr. Bert Kennedy. The printout was internally identified as Job Report 1315, November 10, 1987. Lesser and non-numerical analyses were done directly by the project validator.

Panelists validated the first or "released" edition of the NTE Core Battery. Certificate candidates actually take one of four subsequent test editions. However, since test specifications are constant across the five editions and tested populations are the same, validation of the released edition can be applied to later test forms. Core Battery test copies, including 70 sample essays, were provided by ETS for the Idaho validation. The number of multiple choice items, excluding essay, found on the released edition Core Battery is shown in Table 5-1.

1. Job Relevance Analysis

The purpose of the job relevance component was to determine if the knowledge and skills covered on the NTE

Core Battery content are needed by the beginning teacher in Idaho. ETS will not eliminate items in their standardized examination if Idaho finds a number of them to be irrelevant. Therefore, the practical consequence of the job relevance analysis is the reduction of minimum passing scores based on the assumption that candidates do not need to be able to correctly answer non-relevant test items. Also, relevance findings are tools that can be used in test interpretation.

Classified Test Items: Unless a majority of panelists respond to an item, it cannot be used in relevance decisions. Items acted upon by a majority of respondents are said to be "classified." All items on the Core Battery were found to be classified for purposes of Idaho job relevancy. Numbers of classified items per subtest appear as the last column in Table 5-1.

Table 5-1
NTE Core Battery Subtest Items by Number

Test	Number of Items	Items Classified
Communication Skills		
Essay	N/A	N/A
Listening	40	40
Reading	30	30
Writing M-C	45	45
General Knowledge		
Literature/Fine Art	35	35
Mathematics	25	25
Science	30	30
Social Studies	30	30
Professional Knowledge		
Section 1	35	35
Section 2	34	24
Section 3	35	35
Total	339	339

Job Relevancy Results: Panelists were asked to judge all 339 multiple-choice items according to the relevancy importance of each to the job of a beginning Idaho teacher. The categories available were critical, important, questionable and not relevant (Appendix J). Consistent with ETS suggested guidelines, items were rated relevant if the majority of ratings fell into either the critical or important categories combined. Likewise, non-relevance resulted if the majority of panelists marked questionable or not relevant. Fourteen (14) of 339 items were judged non-relevant. All were in one or another of four subtests of the General Knowledge test. Would any of these subtests merit an overall rating as non-relevant? Not according to ETS guidelines, which state that relevancy will be maintained as long as rates do not drop below 70%. Table 5-2 summarizes the relevancy findings.

The pattern of job relevancy judgments given by the Idaho panelists is interesting. Using the four point rating system available on the response sheets, Table 5-3 shows the percent of responses that fell into each category. Within the four General Knowledge subtests, the 14 items judged non-relevant were distributed as follows:

Literature and Fine Arts: Items 7, 15, 17, 27, 35
Mathematics: Item 23
Science: Items 21, 24, 26, 29
Social Studies: Items 8, 12, 15, 19

Table 5-2

Number and Distribution of Non-Relevant and Relevant Items: Idaho Core Battery Validation

Test	Total Items	Non-Relevant	Percent Relevant
Communication Skills			
Essay	N/A	N/A	N/A
Listening	40	0	100
Reading	30	0	100
Writing M-C	45	0	100
General Knowledge			
Lit/Fine Arts	35	5	85.71
Mathematics	25	1	96.00
Science	30	4	88.57
Social Studies	30	4	88.57
Professional Ed			
Section 1	35	0	100
Section 2	34	0	100
Section 3	35	0	100
Totals	339	14	95.87

Table 5-3

Percent of Job Relevance Responses in Each Relevancy Category

Test	Crucial	Important	Questionable	Not/Rel
Communication Skills				
Essay	N/A	N/A	N/A	N/A
Listening	30.43	55.96	11.92	1.69
Reading	24.32	60.90	12.26	2.52
Writing M-C	28.34	58.01	11.87	1.78
General Knowledge				
Lit/Fine Arts	9.92	58.09	25.34	6.65
Mathematics	25.33	58.30	14.64	1.73
Science	16.73	60.25	19.60	3.42
Social Studies	18.99	56.57	20.56	3.88
Professional Knowledge				
Section 1	32.98	53.85	11.64	1.53
Section 2	28.63	56.73	14.55	1.09
Section 3	25.78	57.43	15.04	1.75

Essay Relevancy Results: ETS supplied 70 sample essays for the project. Each panel member was given 14 essays to judge drawn from one of fifteen different sample configurations arranged by the validator. Each configuration contained the full range of essay qualities from poorest to best. It was uncommon for any one sample grouping to be used more than once or twice at any panel meeting site. The purpose of the various arrangements was to make certain each sample essay was used equally and to reduce possible comparison of essay evaluations among panelists during breaks or lunch.

Essays were judged holistically, a process not comfortable to some "criterion-oriented" panelists. Job relevancy persons were given an essay response form with a single question. "Are the writing skills tested through such an essay relevant to the writing skills needed to teach in the public schools of Idaho?" Comment space was provided. (Appendix K). The results of this yes-no question is given in Table 5-4.

Table 5-4
Job Relevance Responses of Essay Skills
by Number and Percent N=49

Response	Number	Percent
Yes	48	97.96
No	1	2.04
No Response	0	0

Sixteen (16) panelists wrote comments about essay relevancy, with the majority expressing support for better writing proficiency.

2. Content Review Analysis

The purpose of content review was to match content on the Core Battery against the opportunity candidates would have to learn that content. This opportunity is often equated to teacher education program content but the principle may also depend on material not taught by colleges. Listening skills are an example. Nonetheless, colleges have to assume the final responsibility for their graduates having command of transferred or previously acquired skills not taught on campus.

Content reviewers responded on the basis of their personal campus experience, but data were analyzed without campus identification. This combining allowed all the higher education institutions in Idaho to be viewed as a single state aggregate.

Classified Test Items: As was the case for job relevance, "classified" test items were those acted upon by a majority of content review panelists. All items on the Core Battery were so designated. Consequently, all test items became part of the content review database.

Content Review Results: Reviewers judged each test item for content appropriateness by responding "Yes," "No", or "Do Not Know" (DNK) to the question whether candidates would have had the opportunity to acquire item content

(Appendix L). If an item received No or DNK tallies from 50% or more of the panelists, it was judged non-appropriate. No item on any subtest was so judged. Content review results are listed as Table 5-5. Judgments appear to indicate ample opportunities for Idaho produced certificate applicants to have learned the material covered by the tests.

Table 5-5
Number and Distribution of Non-Appropriate and Content Appropriate Items: Idaho Core Battery Validation

Test	Total Items	Non-Appropriate	% Content Appropriate
Communication Skills			
Essay	N/A	N/A	N/A
Listening	40	0	100
Reading	30	0	100
Writing M-C	35	0	100
General Knowledge			
Lit/Fine Arts	35	0	100
Mathematics	25	0	100
Science	30	0	100
Social Studies	30	0	100
Professional Knowledge			
Section 1	35	0	100
Section 2	34	0	100
Section 3	35	0	100
Totals	339	0	100

The distribution percentages of Yes-No-DNK responses for each subtest are given in table 5-6. Among the Core Battery areas, Communication Skills rated the highest on opportunity to learn. General Knowledge, particularly the Literature and Fine Arts subtest, had the poorest rating.

Table 5-6

Percent of Content Review Responses in Each Response Category

Test	Yes	No	DNK
Communication Skills			
Essay	N/A	N/A	N/A
Listening	96.52	3.35	.13
Reading	95.13	4.19	.68
Writing	96.23	3.65	.12
General Knowledge			
Lit/Fine Arts	79.02	16.21	4.77
Mathematics	94.75	4.33	.72
Science	84.58	12.94	2.48
Social Studies	87.60	10.09	2.31
Professional Knowledge			
Section 1	83.36	13.27	3.37
Section 2	83.56	12.37	4.07
Section 3	83.87	12.54	3.59

Essay Content Review Results: Similar to job relevance, content reviewers were given 14 sample essays to judge. They gave a "Yes" or "No" response to the question, "Do you believe that those individuals graduating form Idaho teacher education programs would have had the opportunity to learn the writing skills necessary for writing on the topic?" The response form is Appendix M. All panelists responded "Yes." (100%). Instructions to the panelists included an acknowledgment that colleges may not necessarily teach all basic writing skills. But if the colleges assume students have gained prerequisite basic skills before coming to the campus then this former schooling could represent part of the "opportunity to learn." Five (5) panelists wrote comments on essay skills, most commenting on the college courses that covered the skills.

Difference in Relative Emphasis: It was previously noted there appears to be a close match between test content and learning opportunity as measured by zero non-appropriate items. However, no institution, nor the state colleges and universities combined, are expected to correlate exactly with test emphasis.

The Core Battery is built on a constant national set of content objectives, with specified percentages of test questions devoted to each objective. ETS makes this information known in a series of subtest descriptors titled NTE Validity Study Content Description (Appendix N). Content reviewers were given the task of comparing Core Battery specifications as given on the description sheets to their perceptions of institutional curricular emphases. Reviewers from an institution had the option of meeting together to reach consensus. Each individual completed an emphasis form (Appendix O), however, with additional pages available on which to comment about institutional-Core Battery differences. An Idaho state average for relative emphasis was calculated by analyzing response sheets without regard to college name.

Emphasis data were quantified into a "degree of relative emphasis (DRE)" by employing the following formula:

$$DRE = \frac{N_m - N_l}{N_m + N_l + N_s}$$

Where subscript m is the number of "more than" responses, l is the number of "less than" responses and s is the number of "same as" responses. A positive DRE

> meant that the NTE placed more emphasis than did the collective Idaho programs; negative DRE's implied less.

DRE quantities can range from -1.00 to zero to + 1.00. Table 5-7 summarizes the DRE's by subtest. It should be noted that the Professional Knowledge test has six content objectives which are not isolated to any particular subtest section but are instead spread across all three sections. DRE analysis produces a profile by which to compare college programs and test content emphasis.

Instructions given to college panelists for relative judgments asked them to compare test emphases against the "program emphases offered at our college." The index calculated for each subtest, excluding essay, ranged from zero to ± 100. A zero index indicates that test and college emphases were equal. Equal emphasis comes about by (a) panelists responding "same" when making the comparison, or (b) the number of panelists responding "more than" is equal to the number answering "less than" - the comparisons cancel each other out.

Positive DRE indices indicates test emphasis greater than the college programs; negative implies the test having less emphasis than college programs. A DRE of 50 or less in absolute value would indicate that the test and college curricula are more alike than different.

A comparison of the weighted subtest indices shows the tendency toward positive DRE's. There is a perception among higher educators that the percentage of Core Battery questions devoted to specified objectives exceeds the emphases found in Idaho teacher education programs. However, over four-fifths of the positive total comes from Listening Skills and Literature/Fine Arts. Listening Skills was professed not to be taught at the collegiate level and Literature/Fine Arts was the subtest experiencing the most disagreement on job relevancy and content appropriateness ratings.

3. Omitted Test Content

Both job relevance and content reviewers were asked about test content they thought was omitted from the Core Battery but needed to be present. Thirty-six (36) panelists submitted omission sheets, some using them for general comments. Nine persons used general comment sheets to address omitted content. One topic stated to be overemphasized by six persons was PL 94-142. A digest of specific omissions mentioned is presented in the following listing (For example, 16 panelists mentioned music as omitted):

Table 5-7

Differences in Relative Emphasis Indices Between Idaho Teacher Preparation Programs and the NTE Core Battery

Test Area	Subtest	Content Description Objective	DRE	Weighted Subtest
Communication Skills				
	Essay	N/A	N/A	
	Listening	I	.447	+66.20
		II	.895	
		III	.895	
		IV	.447	
	Reading	I	-.237	-16.80
		II	-.132	
		III	-.026	
	Writing M-C	I	0.0	-1.10
		II	-.026	
General Knowledge				
	Lit/Fine Arts	I	.316	+40.80
		II	.421	
		III	.526	
	Mathematics	I	-.132	-24.00
		II	-.342	
		III	-.026	
		IV	-.342	
		V	-.211	
		VI	-.605	
	Science	I	-.132	-19.30
		II	.105	
		III	-.263	
		IV	-.158	
		V	-.026	
		VI	-.447	
		VII	-.132	
		VIII	-.526	
		IX	-.184	
	Social Studies	I	.105	+13.70
		II	.211	
		III	-.105	
		IV	.316	
	Professional Knowledge	I	-.237	+8.30
		II	-.342	
		III	.553	
		IV	.342	
		V	.447	
		VI	.368	

Omitted Core Battery Content According to Idaho Validation Panelists

General Knowledge	
* Music	(16)
Computer Technology	(4)
Literature interpretation	(2)
Cultural concepts	(3)
Environmental issues	
Map skills and geography	(2)
Library reference skills	(2)
Artistic ability	
Professional Knowledge	
Specific teaching strategies	(3)
Grouping strategies	
Learning styles/applied learning theory	(2)
Child growth and development	(5)
Contemporary social issues, i.e. drugs, alcohol, AIDS	
Classroom health and safety	
Corporal punishment	
Career awareness	
Values clarification	

Numbers in parentheses indicate number of panelists mentioning the omission in excess of one.

* High frequency may have been due to music used as an omitted example by the validator during training sessions.

4. Knowledge Estimation Analysis

Passing scores for the three Core Battery tests have their basis in knowledge estimation. Through a series of transformations, the performance expected of minimally qualified candidates became study scores. General Knowledge was adjusted downward because of the 14 non-relevant items. Study scores were used by the PSC to arrive at recommended adoption scores for State Board consideration. The remainder of Chapter V is a description of how Idaho study scores for the Core Battery were formulated.

To start the process, the 88 members of the knowledge estimation panel were instructed to establish a particular population of test takers in their minds as they made judgments, a hypothetical group composed of minimally qualified candidates. Discussion was held about the normal curve placement of these minimal graduates relative to the performance expected of other candidates as a whole. The minimally qualified concept is the usual approach followed in setting passing standards on the NTE (and other teacher tests). The exact performance standard of this hypothetical population is, however, determined not by any norm, but rather defined in the minds of individual panelists.

The second instruction to participants concerned estimated performance. Estimation involved the panelists' best judgments about the percent of minimally qualified persons who would know the correct response to each of the multiple-choice questions. Guessing was not to be a factor in the judgments. Percent estimations were recorded on prepared forms, the same sheets used for job relevance or content review decisions (Appendices J and L).

Panelists marked any percent category from 10% to 90%, a scale which was a minor modification of that described by Livingston and Zieky (Previous citation - Passing Scores: Manual for Setting Standards of Performance on Educational and Occupational tests). Frequencies, means and standard deviations were generated by computer for each subtest except essay. The format was as follows:

Combined Knowledge Estimation

```
   Test Area...                           Subtest...
Item   10  20  30  40  50  60  70  80  90  DNK Mean  SD B
1                                           :    :   :
2                                           :    :   :
:                                           :    :   :
:
:
N
Totals
      F   F   F   F   F   F...........F    F    %    SD F
       10  20  30  40  50  60          90       Mean  Mean
```

The computer printout is available as a document supporting the Idaho validation study.

<u>"Classified" Knowledge Estimation Items</u>: If 50% or more respondents failed to make an estimation on any item, that item could not be used in analysis. Such was not the case for any item in the Idaho study; all items were "classified" and became part of the database.

Panelists were urged to make a percent estimate if possible and not use DNK (do not know) unless sincerely uncomfortable about responding. The total numbers of DNK responses by subtest is given in Table 5-8. If DNK's were concentrated on selected items, non-classification might have resulted but that was not the case. Three items had the highest DNK count of three (3).

<u>Mean Raw Percentage</u>: The estimated percentages for all 88 panelists were meaned for each test item. Item means were themselves averaged to find a mean raw percentage for each subtest. The same sequence was followed to obtain a standard deviation for each subtest. Mean results are summarized in Table 5-9. Essay procedures are described separately.

Table 5-8

DNK (Do Not Know) Responses by Subtest:
Idaho NTE Core Battery Validation: N=88

Subtest	No. of Items	Possible Responses	DNK
Essay	14 per person	1,232	0
Listening	40	3,520	3
Reading	30	2,640	0
Writing	45	3,960	1
Lit/Fine Arts	35	3,080	11
Mathematics	25	2,200	2
Science	30	2,640	3
Social Studies	30	2,640	2
PK-1	35	3,080	3
PK-2	34	2,992	14
PK-3	35	3,080	11
Totals	339 + essay	31,064	50

Mean Raw Scores: Knowledge estimators made their judgments without regard for guessing, the non-relevancy of items or the non-content appropriateness of items. It was necessary to statistically account for these factors, however, in the transformation to study scores. The following assumptions were made when modifying raw percentages:

(a.) Candidates will not know the answers to non-relevant items.
(b.) Candidates will not know the answers to non-content appropriate items.
(c.) Guessing will enable some items in (a) and (b) to be correct by known probabilities.
(d.) The percentage of candidates who were estimated to not know the correct response to an item (100 -% knowing) would guess the item correctly by known probabilities.

A second principle in transforming mean raw percentage is that of expressing performance, not in percentage terms, but in terms of raw scores. Raw scores reflect performance in terms of the number of items in a given test.

Mean raw percentages are first translated into mean raw scores and then the guessing factors (assumptions a-d) are applied. The result is a mean raw score indicating how the minimally qualified candidates would correctly _mark_ the tests as opposed to scores they would obtain from _knowing_ correct answers.

Appendix P explains the process by which mean raw scores for Core Battery subtests are derived. Table 5-9 shows the results when raw score and guessing modifications were applied to the percentage estimates. It should be remembered that the effects of the 14 non-relevant items now show up, as well as the fact that there were no "unclassified" items. The last column in the table represents the number of items minimal candidates would be expected to mark correctly.

Essay Knowledge Estimation: At this point it is necessary to describe the special procedures used to establish the minimum level of essay performance acceptable to Idaho. The numerical equivalent of that level after transformation became the mean raw score for the essay subtest and thus a component of the total Communication Skills score.

Table 5-9

Mean Raw Scores For Subtests: Idaho Core Battery Validation

Subtest	Mean Raw Percentage	Mean Raw Scores
Essay	N/A	N/A
Listening	58.59	27.577
Reading	54.50	19.080
Writing M-C	49.30	26.748
Lit/Fine Arts	49.14	18.793
Mathematics	52.72	15.121
Science	50.65	16.535
Social Studies	50.92	16.591
PK - 1	54.10	22.122
PK - 2	53.93	24.463
PK - 3	52.89	21.740

Panelists judged as either "passing" or "failing" each of the 14 sample essays distributed to them. Each essay was identified by a letter code ranging from "A" to "RRR." After reading the essays, the 14 pass/fail decisions were recorded on prepared forms (Appendix Q). ETS provided a rating sheet on which each essay A-RRR was given a quality score ranging from 2(poor) to 12(best). These scores were given by trained readers at ETS during an actual grading of Core Battery essays. However, panelists were not provided with the 2-12 score ratings of the 14 writing samples they considered. This withholding of scores was to prevent the temptation to mentally fix a numerical score minimum and then judge pass/fail accordingly. Appendix R is the essay rating sheet supplied by ETS. The pass/fail distribution resulting from the process appears as Table 5-10. Each essay was judged by approximately 18 persons.

An individual essay was regarded as collectively passing if a majority of the panelists gave it a pass designation. The same held for failing essays or ties. When the distribution of collective ratings was combined with the ETS quality scores, it was possible to construct a plot of all 70 essays. The significance of the plot was that it graphically illustrated the quality score minimum acceptable to the panel as a whole. That plot is shown as Table 5-11, in which the score of 6 is the obvious minimal standard. When students actually take the test, they may score higher or lower than 6, but that figure was used as a constant to help determine the Communication Skills study score.

Adjusted Mean Raw Scores: Correct responses on subtest items do not equally impact a final score. Weighting varies among the subtests according to the number of items in each one. When mean raw scores are multiplied by established weighting factors, the products are called adjusted mean raw scores. Applying this method to (a) mean raw score already calculated, (b) weighting furnished as ETS specifications, and (c) the essay level 6 as a mean raw score, the adjusted mean raw scores for the entire Core Battery surface as seen in table 5-12. Scores for the three test areas are the sum of components subtests.

Table 5-10

Distribution and Pass/Fail Ratings for 70 Sample Essays: Idaho NTE Core Battery Validation

Essay Sample Code	Pass	Fail	Essay Sample Code	Pass	Fail
A	18	0	AA	15	0
B	19	0	BB	4	15
C	15	3	CC	8	9
D	17	0	DD	16	2
E	18	1	EE	17	1
F	1	15	FF	6	12
G	17	1	GG	15	2
H	17	1	HH	7	11
I	9	6	II	15	3
J	17	1	JJ	16	2
K	18	0	KK	17	1
L	16	2	LL	6	11
M	16	2	MM	3	13
N	14	3	NN	8	10
O	16	3	OO	17	2
P	7	8	PP	17	1
Q	4	14	QQ	7	11
R	17	1	RR	15	2
S	17	1	SS	11	6
T	18	1	TT	1	18
U	17	0	UU	15	2
V	14	4	VV	18	0
W	17	0	WW	9	9
X	2	17	XX	12	6
Y	16	2	YY	17	0
Z	15	1	ZZ	5	13
AAA	1	17			
BBB	7	11			
CCC	3	14			
DDD	3	16			
EEE	1	15			
FFF	1	17			
GGG	0	18			
HHH	8	9			
III	2	15			
JJJ	7	10			
KKK	1	17			
LLL	19	0			
MMM	3	13			
NNN	16	2			
OOO	6	11			
PPP	15	1			
QQQ	16	1			
RRR	18	0			

Table 5-11

Plot of Panel-Determined Essay Ratings of 70 Sample Essays: Idaho NTE Core Battery Validation

12	11	10	9	8	7	6	5	4	3	2	Quality Level
N=5	N=5	N=5	N=5	N=5	N=5	N=9	N=2	N=1	N=0	N=0	
						GG					
						EE					
						DD					
						AA					
RRR	NNN	PP	W	L	RR	V					Passing
QQQ	LLL	II	T	J	OO	U					
PPP	YY	Z	S	I	JJ	O					
VV	KK	Y	R	E	M	N	XX				
D	B	K	H	A	G	C	SS	UU			
								WW			
						P	FF	F	X	AAA	
							HH	Q	CC	CCC	
							NN	BB	DDD	EEE	
							BBB	LL	MMM	FFF	
							HHH	MM	OOO	GGG	
							III	QQ			
							JJJ	TT			
							KKK	ZZ			Failing
N=0	N=0	N=0	N=0	N=0	N=0	N=1	N=8	N=8	N=5	N=5	

NOTE: Letters Identify Essay Samples

TOTAL = 70

Table 5-12

Adjusted Raw Mean Scores: Idaho NTE Core Battery Validation

Test	Mean Raw Score	x Weighting Factor	= Adjusted Mean Raw Score
Communication Skills			165.2497
Essay	6.000	3.8581	23.1486
Listening	27.577	2.3624	65.1479
Reading	19.080	2.6313	50.2052
Writing M-C	26.748	1.0000	26.7480
General Knowledge			75.9868
List And F.A.	18.793	1.0000	18.7930
Mathematics	15.121	1.2243	18.5126
Science	16.535	1.1666	19.2897
Social Study	16.591	1.1688	19.3915
Professional Knowledge			65.3300
Section 1	22.122	1.0000	22.1220
Section 2	24.468	1.0000	21.4680
Section 3	21.740	1.0000	21.7400

Scaled Scores: A final score transformation was necessary. An individual's Core Battery scores are reported as "scaled scores" by ETS. The scale, which is unique to the Core Battery, has a minimum of 600 (all items missed) and maximum of 690 (perfect score). Conversion from the three test scores to scaled scores was accomplished by reference to ETS published conversion tables. The scaled scores thus generated were the study scores for the Communication Skills, General Knowledge and Professional Knowledge tests. The end product of the knowledge estimation process study scores are exhibited in Table 5-13.

Table 5-13

Scaled Study Scores: Idaho NTE Core Battery Validation

Test Area	Adjusted Mean Raw Score (Truncated Decimals)	Scaled Score
Communication Skills	165	656
General Knowledge	75	650
Professional Knowledge	65	656

Chapter VI

INTERPRETATION OF STUDY RESULTS

Interpretation is the decision making aspect of validation. Job relevance data were collected to answer the question of whether test content was needed by the candidates seeking initial Idaho certification. Content review procedures matched test content against the perceived opportunity to learn that content. Knowledge estimation generated the information needed to empirically establish minimal score performance on the tests of Communication Skills, General Knowledge, and Professional Knowledge.

Study scores were derived from the analyses outlined in the previous chapter. The function of Chapter VI is to bring the best evidence available to bear on those scores in order to decide whether they are acceptable as is for certification purposes, or whether they should be modified before making recommendations to the State Board.

Evidence used in the decisions may include: (a) the study itself, (b) experiences from previous validation studies in other states, (c) guidance from ETS, particularly the content validity manual authored by Edward Masonis (cited in Chapter II), (d) actual performance by Core Battery test takers in other states, (e) comparative scores on other Core Battery validations referred to a "reality check", (f) teacher supply/demand projections, and (j) the wisdom of the Idaho PSC and other professionals concerning the educational and political context in which the study was done.

1. Study Procedures Interpretation

Procedures used in content validity studies are becoming almost standardized. The methodology employed in the Idaho study was not experimental; it followed the same general approach used in numerous other states. The research design reflected procedures that have been found to be legally acceptable.

One feature that varies among validity studies from state to state is the way in which the panels are constituted. Five variables were designed into the Idaho panel selection. The first interpretation question asks whether actual panel membership and participation significantly deviated from the planned design of the panels. Chi-square analysis was conducted (at the .05 level of statistical significance) to test expected vs observed panel membership in terms of on the five selected variables. In all cases, no significant differences were found. It must be remembered that panel selection variables applied only to the 50 persons who came from public and private elementary and secondary schools. Table 6-1 summarizes the chi-square analysis.

Table 6-1

Chi-Square Analysis of 50 Job Relevance Panelists by Study Design Variables: Alpha = .05

Variable	Significant Difference Planned vs Selected	Significant Difference Select vs Participate
Region	No	No
Professional Activity	No	No
Race/Ethnicity	No	No
Gender	No	No
Instructional Level	No	No

Two of the job relevance variables, gender and race/ethnicity, could be applied to the 40 content review panelists although there were no population proportions available from the colleges and universities. Applying the same proportions used for the elementary - secondary, chi-square analysis on gender and race showed (a) proportions of males and females in the college population did significantly favor men compared to elementary - secondary (b) the proportion of white and non-whites in the college and elementary - secondary population do not significantly differ. When the men and women on the two panels were combined, there was no statistical difference from the designed plan.

Conclusions from the analysis are as follows:

(1) Selection and participation of the 50 panelists from elementary - secondary schools occurred as planned and proportionally represented five variables in the Idaho certificated population actively contracted during 1987-88.

(2) The 40 additional panelists from higher education existed in the same proportions as elementary - secondary in terms of race but not

of gender.

(3) When combined, total panel proportions did not significantly differ from the numbers in the Idaho elementary - secondary population.

(4) It is unknown whether race and gender representation on the content review panel was proportional to that existing in Idaho teacher preparation institutions.

Where control and random selection was possible, the Idaho validation panel was representative of the state's active certified professionals according to geographic region, professional activity, gender, race and instructional level.

2. Job Relevance Interpretation

The analysis of job relevance in Chapter V did not find any subtest dropping below the 70% minimum for overall test relevancy. However, three subtests did fall below the 90% level, a figure used by ETS to warrant "second stage examination." The purpose of this concept for job relevancy is to determine statistically whether non-relevant items were distributed evenly across test components or were concentrated in only a few. The latter circumstances would indicate that certain content (objectives) on the test was not relevant and therefore possibly inappropriate for selected groups of test takers, i.e., elementary majors or liberal arts graduates. Chi-square analysis was used to test the distribution of non-relevant items. Table 6-2 shows the results when three subtests in question were analyzed.

Table 6-2

Chi-Square Analysis for General Knowledge Subtests Demonstrating 90% or Less Item Relevance: Alpha=.05

Test	Content Descriptors	No. of Items	No. of Relevant Items	Significant Differ	Non-relevant Item #
L/FA	I	10	8		7,15
	II	19	17	No	17,35
	III	6	5		27
Science	I	3	2		26
	II	4	4		
	III	3	3		
	IV	3	3		
	V	3	3	No	
	VI	3	2		29
	VII	4	3		24
	VIII	3	2		21
	IX	4	4		
S.Studies	I	7	4		15,18,19
	II	7	7		
	III	8	7	No	12
	IV	8	8		

No significant difference on any of the three subtests means that the non-relevant items within Literature and Fine Arts, Science and Social Studies were evenly distributed across the respective content objectives. No content covered by any of the subtests nor any of the subtests as a whole can be considered non-relevant for the Idaho study.

Job Relevance Summary: The ETS Masonis manual suggests a series of overall judgmental degrees that can be used to summarize job relevance. The degrees are as follows:

* Very relevant - 90% or more of items classified as relevant.
* Relevant - 85 to 898% of items are classified as

relevant
- * Reasonably relevant - 80 to 84% of items are relevant
- * Probably relevant - 75 to 79% of items are relevant
- * Not related - Fewer than 75 % of items are relevant

Applying this scheme to the information found in Tables 5-2 and 5-4 (Relevancy tables), the Core Battery can be interpreted for job relevancy.

A. Communication Skills: Very relevant

1. Essay: Very relevant; 97.96 % of panelists felt the skills needed for essay writing were needed for new Idaho teachers.
2. Listening: Very relevant; Panelists judged 100 % of listening skills relevant.
3. Reading: Very relevant; Panelists judged 100 % of reading skills tested to be relevant.
4. Writing Multiple Choice: Very relevant; Panelists judged 100 % of test items relevant.

B. General Knowledge: Relevant

1. Literature and Fine Arts: Relevant; 85.71 % of Items were judged relevant. Five non-relevant items were evenly distributed across three content objectives.
2. Mathematics: Very relevant; 96% of math questions were judged relevant by panelists.
3. Science: Relevant; Panelists judged 88.57 % of items relevant. Four non-relevant items were evenly distributed across nine content topics.
4. Social Studies: Relevant; 88.57 % of items were judged relevant. Four non-relevant items were evenly distributed among four areas of content.

C. Professional Knowledge: Very relevant

1. All three sections of professional knowledge had 100% of items judged relevant by the panel. Six different content areas composed the three subsections.

The tests of Communication Skills and Professional knowledge are very relevant for candidates seeking initial Idaho certification. Some problems exist for the test of General Knowledge but it is still classified as relevant for certification purposes.

3. Content Review Interpretation

The data from the content appropriateness review were aggregated across teacher preparation programs at all six universities and colleges in Idaho. Measures of content review provided information about the correspondence between test content and program curricula. Table 5-5 plus the essay analysis revealed that 100 % of the items on all subtests were judged to be content appropriate by the content review panel.

Relative Emphasis Interpretation: DRE analysis in Chapter V stated that a DRE of 50 or less in absolute value indicated agreement between the test and college program emphasis. This study used a more conservative criterion of 40 % to imply agreement, a procedure used in New York state's validation project.

Listening and Literature and Fine Arts were the two subtests exceeding the 40 % criterion, subjecting them to a second stage analysis. Listening was indexed at + 66.20 which may seem a contradiction considering that no listening items were declared non-appropriate. The answer lies in the two different sets of instructions given to panelists. During content review, the question was "Have candidates had an opportunity to learn test content?" "Yes" responses assumed the student had learned the skill somewhere in his/her background even though not taught in college. Many panelists verbally commented that they did not teach listening skills at the collegiate level. DRE instructions, on the other hand, asked for a comparison of test content to the curricula offered at the colleges. Hence, the positive 66.20 DRE is logical; it probably signifies the discrepancy in college exposure but does not imply that listening skills are inappropriate.

These variations manifested themselves in several ways during validation. First, Literature and Fine Arts had the highest number of non-relevant items. Second, this subtest had the highest rate of "No" responses among content reviewers (16.21 % - Table 5-6). Third, the subtest was the brunt of much written comment submitted by panelists.

Bias Check: All panelists from both job and content reviews had an opportunity to check any item they thought might be biased against any classification of certificate applicants. The check was added to other panel tasks in order to assist interpretation. As seen in Table 6-3, bias checks did not indicate a strong systematic bias in any of the subtests. The table does show a greater number of items were checked by content reviewers then by job relevance panelists. This is especially true in three general knowledge subtests. Literature and Fine Arts, Science and Social Studies had the highest percentage of the 88 panelists target them for bias - 3.41 %, 4.55 % , 4.55 % respectively. Comments written to substantiate bias checks showed concern that the test might be biased against students who were not pursuing selected majors. Otherwise, the results of bias did not reveal consistent comments that would affect interpretation.

Panelists' Comments About Test Content: Content review analyses compared the match between test content and teacher education curricula. But interpretation must also consider if the test is deficient in appropriate content, at least in the opinion of panel members. All panelists were encouraged to comment on the test using "omitted content" or "general comment" mechanisms. The two comment lists pose an immediate question about the generality of expressed concerns, whether they addressed main topics or microscopic aspects of topics used on a particular test edition. A digest of general comments is listed for reference.

Digest of General Comments from 36 Panelists

Idaho NTE Core Battery Validation

Test was fair and relevant (7)

Complimentary remarks about specific subtest (5)

Concerns

1. Validation and Core Battery not the appropriate mechanism to improve professional quality.

2. Validation process and mechanics
   Too long (6)
   Panel size too small
   Test copies not always of good reproduction quality (4)
   Preferred that correct responses be not marked on

test (3)
Use of minimally qualified candidate reference group (6)

3. Test construction
   - Different weighting via numbers of items per subtest
   - Poor wording for selected items (6)
   - Listening test speed too rapid (4)
   - Disagreed with correct response on selected items(4)
   - Too narrow in scope
   - Too specific (3)
   - Test of logic and reading rather than content (5)
   - Too factual
   - General dissatisfaction

4. Specific test area
   - Communication Skills
     - Holistic essay grading (3)
   - General Knowledge
     - Literature and Fine Arts general dissatisfaction(3)
   - Professional Knowledge
     - Geared to secondary teachers
     - Geared to elementary curriculum (3)
     - General dissatisfaction (4)

5. Other concerns
   - Discriminates against minorities (2)
   - Overemphasis on PL94-142 (6)

Music stands out as the content drawing the most concern. It was mentioned 16 times as omitted. The power of suggestion may have been at work, because the validator used music as an example of a possibly omitted topic during the panel training sessions. Communications skills content was seldom singled out for criticism, although holistic essay grading and the listening test were mentioned by three and four persons, respectively.

General Knowledge as a test area received comment from two or more persons on five separate subtopics other than music already mentioned. Two of these, computer technology and library reference skills, are topics that are in fact not currently included in the General Knowledge subtest.

Professional Knowledge had three topics mentioned as missing by two or more persons, led by child growth and development. Of 13 specific comments about test construction and the validation process, nine were mentioned by two or more individuals. The significance of at least two persons commenting on a test characteristic is that such concerns are probably not idiosyncratic.

Thirty six (36) different concerns were expressed via the two comment mechanisms. That number and their distribution would indicate that negative concerns are driven by specific sensitivities to the test, and do not indicate concentrated weaknesses that would negate content appropriateness or job relevance. Seven (7) panel members gave written praise for the Core Battery in general terms, while another seven concluded that the Core Battery was not appropriate for certification testing.

Content Review Summary: Using categories defined in the Masonis ETS manual, content review of the Core Battery is interpreted as follows:

A. Communication Skills: Closely related

1. Essay: Closely related; All panelists judged that candidates would have opportunity to learn required skills.

2. Listening: Closely related; All items judged content appropriate although the method of

presenting the test was questioned. High DRE indicated skills were not taught at the college level.

3. Reading: Closely related: All items were judged appropriate and there were no criticisms of the reading test.

4. Writing Multiple-Choice: Closely related; No evidence of non-appropriate items. Very low DRE implies close match between test and opportunity to learn.

B. General Knowledge: Closely related

1. Literature and Fine Arts: Reasonably related; High DRE and missing content are symptomatic of the variety of college curricula offered and/or required in the humanities. Bias count appears related to the same variety.

2. Mathematics: Closely related; all test items appropriate and disagreement of negative DRE indicates colleges offer more mathematics than the test demands.

3. Science: Closely related; All items appropriate with DRE indicating a reasonably close match between curricula and test. Bias frequency alludes to science course variety required of education students.

4. Social Studies: Closely related; No inappropriate items and small DRE. Suggested additional content would be cultural concepts and geography.

C. Professional knowledge:

1. All items in all subtests appropriate. Comments and bias counts show dissatisfaction but within acceptable range.

Communication skills rated very well with content reviewers; test content was judged to closely match with skills taught in college or expected of teacher eduction students. General Knowledge and Professional Knowledge were closely related to curricula but at lower levels than

Communication Skills. Missing content and differing emphasis in college programs may affect some students with particular backgrounds, but there should be no disadvantage to the general Idaho-prepared candidate who takes the tests of General and Professional Knowledge.

4. Knowledge Estimation Interpretation

The purpose of interpretation now shifts from the impacts that internal analysis may have had on study scores to comparisons with other Core Battery states and the pass/fail consequence of minimal cut scores.

Comparative Study Scores: Nineteen (19) other states use, or are scheduled to use, the Core Battery for certification. How do Idaho's three study scores-Communication Skills, 656; General Knowledge, 650; and Professional Knowledge, 656 -- compare with study scores obtained from other validation studies up to the present time? Table 6-4 shows the known study scores from 12 other states against which the three Idaho study scores can be compared. Refer to the "Study Scores" column under the appropriate test area initials. The median (middle) scores of the existing states are CS=656, GK=655 and PK=649

Placing Idaho within a ranking of state study scores illustrates the relative magnitude of Idaho study scores.

Standard Error of Measurement: Each of the three tests has associated with it an established standard error of measurement (SEM) which fixes the boundaries within which a test-taker's "true score" falls with a known probability.

Table 6-3

Frequency and Percent of Bias Checks for 88 Panelists: Idaho Core Battery Validation

Test	Job Relevance Frequency	Content Review Frequency	Total Frequency	# Items Checked Total	% Panelists Checked Highest Item
Communication Skills					
Essay	N/A	N/A	N/A	N/A	N/A
Listening	10(2)	8(2)	18(3)	12/40	3.4
Reading	6	0	6	6/40	1.14
Writing	0	1	1	1/45	1.14
Test Totals			25		
General Knowledge					
Lit/Fine Art	1	35(3)	36(3)	24/35	3.41
Mathimatics	1	1	2	2/25	1.14
Science	4(2)	35(2)	39(4)	28/30	4.55
Social Studies	7(2)	11(2)	18(4)	11/30	4.55
Test Totals			95		
Professional Knowledge					
Section 1	2	16(2)	18(3)	10/35	3.41
Section 2	2	10(3)	12(3)	10/34	3.41
Section 3	2	5(2)	6(2)	5/35	2.27
Test Totals			36		
GRAND TOTALS			156	109/339	

( ) indicates maximum checks for any item on subtest

Table 6-4

Comparative Scores for States Using the Core Battery as a Requirement for Initial Certification

State	Study Scores			Initial Adoption Scores			New Adoption Scores			Passing Rate % *
	CS	GK	PK	CS	GK	PK	CS	GK	PK	
Hawaii				651	647	648				73% passed full battery
Indiana	659	655	640	653	647	646				88%
Kansas			645			642				94%
Kentucky	663	658	661	643	637	641				93%
Louisiana	652	651	652	645	644	645				87%
Maryland	661	655	644	648	645	648				
Mississippi	652	647	650				644	639	642	88%
Montana	652	648	652	648	644	648				92%
New Jersey					642			644		89% old 82.9% new
New Mexico	656	657	642	644	645	630				92% CS 88%GK 99%PK
New York	656	656	652	650	649	646				87% CS 79%GK 90%PK
N. Carolina							636	631	644	96.8%CS 95.6%GK 79.9%PK
Rhode Island	649	657	648	649	657	648				75% CS 87%GK 93%PK
Tennessee	662	658	655	640	637	631	644	640	635	
Virginia	651	641	641	649	639	639				

Source: Zetler, Alan G., Montana Validation of the NTE Core Battery: Study Report, January 1986 Updated November 1987. State Department of Public Instruction, Helena, Montana.

* Passing rates added by Rudner, Lawrence M., What's Happening in Teacher Testing, August 1987 U.S. Department of Education, Washington D.C.

For the Core Battery, the SEMs are in scaled score units as follows: CS=3.5, GK=3.5, PK=3.8. The SEM is also an indicator of test reliability. A perfectly reliable test would have no (zero) SEM and an individual's test score would be consistent time after time; always falling on the true score. The perfectly reliable test has yet to be constructed, so educators must use probability limits in describing an individual's test ability.

Consideration of the SEM is of great importance to candidates whose test performance is at or near the minimum cut score finally adopted. On any given test administration, their scores could be up or down depending on the array of human and environmental factors that affect test performance. Certification could be denied a candidate whose score on a certain day is low, even though the person might score above the minimum on another day. The same reasoning holds for a poor candidate who has a good day scoring higher than his/her "true" ability. An unqualified candidate might become certified "by chance." The scores could be lowered to give some leeway for the qualified candidate who has a "bad day." But lowering would admit additional unqualified poor candidates. The problem becomes an acceptance/rejection trade off. Although it cannot decide the issue, application of the SEM provides information for educators on the acceptance/rejection probabilities for various cut scores that could be adopted. In terms of standard error units, table 6-5 supplies the normal curve probability figures for an array of options.

Percentile Expectations: For any given score, how many potential teachers could be expected to pass or fail each of the three tests? Percentile equivalents scaled scores are available from NTE to assist in interpretation. A portion of NTE's interpretative bulletin for is reproduced as Table 6-6. The table gives the scaled scores of college seniors and bachelor's degree holders within a selected range.

Comparative Adoption Scores: It has been rare for a state to use minimum cut scores, or "adoption scores" equal to its study scores. Adoption scores are typically lower for a variety of psychometric, educational and political reasons. Some, but not all, of those reasons can be found in certification testing literature and from the validator's personal testing experience.

1. Consideration of the SEM, in recognition of less than perfect test reliability.
2. Taking a purposely humane stance on test scores as they impact certification.
3. Prevent the current minority teaching force from shrinking.
4. Study scores are preceived to be very high compared to other states.
5. Minimize test impact on teacher supply
6. Minimize potential litigation.

Table 6-5

Rejection/Acceptance Options Under Standard Error of Measurement

Probabilities of Erroneously Rejected Applicants with True Scores Greater Than or Equal to X and Accepting Applicants with True Scores Less Than X when Standard for Acceptance is Observed Score Greater Than or Equal to X 0 k (SE_{meas})

	Probability of Rejected Applicants Whose True Score is the Specified Distance, in SE_{meas} Units, Above X						Probability of Accepting Applicants Whose True Score is the Specified Distance, in SE_{meas} Units, Below X					
k	0.0	0.5	1.0	1.5	2.0	2.5	0.0	0.5	1.0	1.5	2.0	2.5
0.0	.05	.31	.16	.07	.02	.01	.50	.31	.61	.07	.02	.01
0.5	.31	.16	.07	.02	.01	.001	.69	.50	.31	.16	.07	.02
1.0	.16	.07	.02	.01	.001	.001	.84	.69	.50	.31	.16	.07
1.5	.07	.02	.01	.001	.001	.001	.93	.84	.69	.50	.31	.16
2.0	.02	.01	.001	.001	.001	.001	.98	.93	.84	.69	.50	.31
2.5	.01	.001	.001	.001	.001	.001	.99	.98	.93	.84	.69	.50

Table 6-6

Interpretative Data for NTE Core Battery Tests

	Percentage of Examinees Scoring Lower than Scaled Scores		
Scaled Score	Comm. Skills	Gen. Knowledge	Prof. Knowledge
660	46	54	54
659	43	52	51
658	40	49	48
657	37	46	44
656	35	44	41
655	32	41	39
654	30	39	36
653	28	36	34
652	26	33	31
651	24	32	29
650	22	29	27
649	20	27	23
648	18	25	22
657	17	23	20
646	15	21	18
645	14	19	16
644	13	17	15
643	11	16	14
642	10	14	12
641	10	13	11
Mean	659	657	657
S.D.	13	14	13

Note: Interpretive Data
Percentile Ranks Based on the Performance of First-Time Test-Takers Tested during the Last Three Yeaars (October 1983, 1984, and 1985; March 1984 and 1985; and June 1986 National Administration and November 1983 Through June 1986 Special Administrations).

7. Impact of test pass/fail rates on teacher education programs.
8. Public attitudes toward educational quality.

Study - Adoption Score Modifications: It is not the study scores that will determine certification but rather the adoption scores. To what extent have states deviated from study scores when arriving at passing scores that will finally be adopted for certification? Some states have made no modification at all; others have dropped by as much as 2[illegible] scaled score points when setting adoption or minimum cut scores. Tables 6-7, 6-8 and 6-9 provide a visual comparison of study scores, adoption scores, and the differences between the two. Reference to Table 6-6 can supply information on national percentiles associated with selected adopted cut scores.

Actual Core Battery Performance Scores: After minimum qualifying scores are adopted by states, what has been the performance pattern? National percentile performances are one indicator, but passing rates for various states are often more meaningful because the characteristics of selected states permit more appropriate comparisons than the national figures. Reference to the right hand "Passing Rate Percent" column in Table 6-4 furnishes information on known passing rates as of late 1987. Caution is needed when comparing passing rates as the definitions of passing standards can vary among the states. According to Rudner,

Table 6-7
Comparative Scores: Communication Skills

Study Scores		Adopted Cut Scores		Difference
665		665		
664		664		
663	Kentucky	663		
662	Tennessee	662		
661	Maryland	661		
660		660		
659	Indiana	659		
658		658		
657		657		
656	N. Mex, IDAHO, N.Y.	656		
655		655		
654		654		
653		653	Indiana	-6
652	Miss., Montana Louisiana	652		
651	Virginia	651	Hawaii	
650		650	New York	-6
649	Rhode Island	649	Rhode Island, Virginia	0, -2
648		648	Montana, Maryland	-4, -13
647		647		
646		646		
645		645	Louisiana	-7
644		644	Miss, N. Mex., Tenn.	-8,-12,-18
643		643	Kentucky	-20
642		642		
641		641		
640		640		
639		639		
638		638		
637		637		
636		636	North Carolina	
635		635		
634		634		
633		633		
632		632		
631		631		
630		630		

Table 6-8
Comparative Scores: General Knowledge

Study Scores		Adopted Cut Scores		Difference
665		665		
664		664		
663		663		
662		662		
661		661		
660		669		
659		659		
658	Kentucky, Tennessee	658		
657	N. Mex, Rhode Island	657	Rhode Island	0
656	New York	656		
655	Indiana, Maryland	655		
654		654		
653		653		
652		652		
651	Louisiana	651		
650	IDAHO	650		
649		649	New York	-7
648	Montana	648		
647	Mississippi	647	Hawaii, Indiana	--, -8
646		646		
645		645	Maryland, N. Mex	-10, -12
644		644	Mont, Louisiana, NJ	-4, -7, --
643		643		
642		642		
641	Virginia	641		
640		640	Tennessee	-18
639		639	Miss., Virginia	-8, -2
638		638		
637		637	Kentucky	-21
636		636		
635		635		
634		634		
633		633		
632		632		
631		631	N. Carolina	
630		630		

Table 6-9
Comparative Scores: Professional Knowledge

Study Scores		Adopted Cut Scores		Difference
665		665		
664		664		
663		663		
662		662		
661	Kentucky	661		
660		660		
659		659		
658		658		
657		657		
656	IDAHO	656		
655	Tennessee	655		
654		654		
653		653		
652	Louisiana, MT, NY	652		
651		651		
650	Mississippi	650		
649		649		
648	Rhode Island	648	RI, MT, MD, HI	0, -4, +4,--
647		647		
646		646	New York, Indiana	-6, +6
645	Kansas	645	Louisiana	-7
644	Maryland	644	N. Carolina	
643		643		
642	New Mexico	642	Kansas, Miss.	-3, -8
641	Virginia	641	Kentucky	-20
640	Indiana	640		
639		639	Virginia	-2
638		638		
637		637		
636		636		
635		635	Tennessee	-20
634		634		
633		633		
632		632		
631		631		
630		630	New Mexico	-12

who supplied the rate figures, the national average passing percentage is approximately 87 %.

Dr. John Voorhis, Certification and Teacher Education Director in the Montana Office of Public Instruction, recently made available candidate performance scores in that state. The information has particular significance in Idaho for several reasons. First, scores were shown in distributions so that actual frequencies for each possible score could be seen, not just the number of persons who met the state minimums. Second, Montana and Idaho are much alike in population, geography, economy and educational structure. Third, certified professionals work under similar circumstances in the schools and colleges of both states. Fourth, the variables used to classify the Idaho elementary - secondary panelists would have produced very similar results had they been used in Montana. An outstanding example is the fact that among certified staff, 98.11 % are white in both states, exact to the second decimal! Table 6-10 shows the Montana score patterns. Only about one-third of the persons who submitted scores became certified during the one year period. Others undoubtedly did so later as other certification qualifications were completed.

College officials in both Montana and Idaho claim that about 30% of their teacher education graduates do not actively seek teaching positions. Analysts can conjecture about how many test failures fall into this 30% group,

Table 6-10

Distribution of Core Battery Scores Submitted To Montana State Department: Period July 1, 1986 - June 22, 1987

Communication Skills		General Knowledge		Professional Knowledge	
Score	Frequency	Score	Frequency	Score	Frequency
Less than 648 minimum	64	Less than 644 minimum	50	Less Than 648 minimum	60
648	15	644	6	648	9
649	14	645	7	649	13
650	16	646	7	650	15
651	22	647	12	651	18
652	15	648	19	652	23
653	32	649	16	653	22
654	23	650	20	654	21
655	20	651	22	655	32
656	22	652	27	656	20
657	40	653	23	657	31
658-667	535	654-663	338	658-667	446
668-677	552	664-673	497	668-677	476
678-687	162	674-683	379	678-687	94
688-690	3	684-690	47	688-690	0
Total =	1,535	Total =	1,170	Total =	1,280

Notes: 1,156 Persons have taken the Core Battery. 530 people became certified who took the test. Of the 530 certified, approximately 35% were trained out of state.

thereby reducing the impact on actual teacher supply.

Cut Score Erosion: After the passage of time, what could happen to a state's adopted cut scores in relative terms? Generally stated, it can be said the scores will probably slip in ranking, or as worded here, the scores will erode. States recently adopting cut scores usually set them at higher levels than did states in earlier validations. Also, some states have raised minimums in recent years both by original intention and due to external pressures. North Carolina has plans to revalidate the Core Battery because of criticisms directed at current score minimums.

Using a proportion to represent relative ranking among states, an index can be attached to a state's cut score position, zero at the bottom and 1.00 at the top. Selected states whose 1985 and 1987 cut score are known are indexed in Table 6-11 to show the effect of cut score erosion over a two year period.

Table 6-11

Cut Score Erosion Indices for Selected States 1985-1987

	Comm. Skills		Gen. Knowledge		Prof.Knowledge	
State	1985	1987	1985	1987	1985	1987
Indiana	1.00	1.00	.86	.77	.88	.89
New York	.90	.77	1.00	.89	.88	.89
Virginia	.80	.67	.43	.33	.38	.33
Montana	.70	.55	.71	.55	1.00	1.00

Recommended Qualifying Scores: The Idaho PSC met during November 1987 to receive the results of the validation study, deliberate those results and formulate recommendations for State Board consideration. The array of interpretation factors described in this report together with input from PSC members, State Department personnel, the ETS Western Region Field Representative and guests were used in the decision process.

A. Communication Skills: The PSC recommends the Idaho qualifying score be set at 652. This score is a reduction of one rounded standard error of measurement (3.5 rounded to 4.0) from the 656 study score.

B. General Knowledge: The PSC recommended the Idaho qualifying score be set at 646. This score is a reduction of one rounded standard error of measurement (3.5 rounded to 4.0) from the 650 study score.

C. Professional Knowledge: The PSC recommends the Idaho qualifying score be set at 648. This score is a reduction of two rounded standard errors of measurement (3.8 rounded to 4.0 x 2) from the 656 study score. A score of 648 is equal to the nation's highest Professional Knowledge scores (currently shared by four other states). The recommended scores would place Idaho in a position with other states as ranked in Table 6-12.

Table 6-12

Ranking of Idaho With Core Battery States Based on Recommended Qualifying Scores and Adopted Scores

Comm. Skills	Gen. Knowledge	Prof. Knowledge
653 Indiana	649 Rhode Island	648 IDAHO
652 IDAHO	649 New York	648 Montana
651 Hawaii	647 Indiana	648 Hawaii
650 New York	647 Hawaii	648 Maryland
649 Rhode Island	646 IDAHO	648 Rhode Island
649 Virginia	645 Maryland	646 Indiana
648 Montana	645 N. Mexico	646 New York
648 Maryland	644 Montana	645 Louisiana
645 Louisiana	644 New York	644 N. Carolina
644 N. Mexico	644 Louisiana	642 Kansas
644 Tennessee	640 Tennessee	642 Mississippi
644 Mississippi	639 Virginia	641 Kentucky
643 Kentucky	639 Mississippi	639 Virginia
636 N. Carolina	637 Kentucky	635 Tennessee
	631 N. Carolina	630 N. Mexico

Note: Proposed or recently enacted score changes may not show in the rankings.

Chapter VII

RECOMMENDATIONS TO THE STATE BOARD OF EDUCATION

By action of the Idaho Professional Standards Commission, the following recommendations are submitted for State Board consideration:

1. Minimum qualifying scores required by State Board Rules and Regulations IDAPA 08.02.C.17,2 Initial Professional Certification Examination be set at the following levels for the NTE Core Battery:

   Communication Skills - 652
   General Knowledge - 646
   Professional Knowledge - 648

2. The Idaho Department of Education be the agent designated for the following purposes:
   (a) Disseminate and interpret the Idaho validation study report.
   (b) Receive and monitor individual score reports and other certification related testing reports that may be generated.
   (c) Authorize use of score reports for research purposes.

APPENDIX SECTION

Idaho NTE Core Battery Validation: Study Report

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INITIAL PROFESSIONAL CERTIFICATION EXAMINATION

The purpose of the regulations is (1) to ensure the maintenance of professional standards, and (2) to ensure that professional school personnel who are entering the Idaho educational system, either from within Idaho or from outside, possess basic knowledge related to their profession.

Effective September 1, 1988 applicants for Initial Idaho Certification must receive satisfactory passing scores on the National Teachers Examination Core Battery with a minimum score established by the Idaho State Board of Education. The Board has adopted a passing score of ___*____ on the Test of Communication Skills, a passing score of ___*____ on the Test of General Knowledge, and a passing score of ___*____ on the Test of Professional Knowledge.

Tests taken more than five (5) years prior to application for certification are not acceptable.

The applicant is responsible for completing the tests and requesting the official scores be submitted to the Idaho State Department of Education.

Those applicants entering Idaho from states which have signed the Interstate Certification Compact with Idaho will be required to meet the testing requirement before the Interstate Compact Agreement is in effect.

Applicants reinstating an expired Idaho certificate and applicants holding a valid out-of-state certificate who would otherwise qualify for Idaho certification may receive a one year non-renewable permit which will allow sufficient time for the applicant to complete this requirement.

Applicants for a certificate endorsement in an area for which the Idaho Certification Standards do not require coursework in pedagogy will be required to have passing scores on the Test of Communication Skills and the Test of General Knowledge only.

Applicants for Interim Vocational Specialist and limited certificates are exempted from the testing requirement.

Test scores, which are confidential, shall become part of the permanent certification file of the applicant.

---

* Passing scores will be determined by the State Board of Education after the completion of the Validity Study.

Appendix B
Page 1

Recipients of Nomination Solicitation Letters: Idaho NTE Core Battery Validation

Category	Number of Letters
Higher Education Institution	
Public	6
Private	3
State Education Institutions	1
Commissions, Committees, and Associations	10
Subject Orientation Association	33
Public School Districts (116)	
District Administration	111
Elementary Principals	253
Secondary Principals	159
Non-Public Elementary/Secondary Schools	52
Total Letters	628

Names of Recipient Agents by Category Exclusive of Public and Non-Public Elementary/Secondary Districts and Schools.

Higher Education	
Public	University of Idaho Idaho State University Boise State University Lewis Clark State College North Idaho College College of Southern Idaho
Private	The College of Idaho Northwest Nazarene College Ricks College
State Education Institutions	School for the Deaf and Blind

Appendix B
Page 2

Commissions, Committees and Associations

Northwest Assoc. of Schools and Colleges
  Idaho State Committee
Idaho School Boards Assoc.
Idaho Assoc. of School Administrators
Idaho Assoc. of Elem. School Principals
Idaho Assoc. of Secondary Sch. Principals
Idaho Assoc. of Special Ed Administrators
Idaho School Superintendent's Assoc.
Idaho Assoc. of Sch. Buisiness Officials
Idaho Education Association
Idaho P.T.A. Inc.

Idaho Subject Oriented Associations

Computer Educators
Alliance for Art Educators
Art Association
Artists-in-Education
Bilingual Education
Counseling and Development
Health, P.E. and Recreation
Supervision & Curriculum Dev.
Teaching of Language & Cultures
Bussiness Education
Idaho Council of IRA
Social Studies
Teachers of English
Teachers of Mathematics
Educational Media
Inland Northwest Council of Teachers of English
Partnerships in Education
School Nursing Organization of Idaho
Treasure Valley Association for the Education of Young Children

Council for Exceptional Children
Home Economics
Industrial Tech. Education
Journalism Advisors
Library/Ed. Media
Music Educators
Retired Teachers
School Counselors
School Psychologists
Science Teachers
Energy & Environmental Ed.
Speech Arts Teachers
Speech, Language & Hearing
Vo-Ag Teachers

Public School Districts

See 1987-88 Idaho Education Directory for names of School Superintendents, Elementary School Principals and Secondary School Principals. Classified by Idaho County, Districts within County, and Schools within Districts, Pages 21-80.

Non-Public Elementary and Secondary Schools

See 1987-88 Idaho Educational Directory for administrators. Schools classified by Idaho county, Pages 81-83

PSC

STATE OF IDAHO
PROFESSIONAL STANDARDS COMMISSION
STATE DEPARTMENT OF EDUCATION
LEN B. JORDAN OFFICE BUILDING
BOISE, IDAHO 83720

August 5, 1987

Dear Fellow Educator:

The purpose of this letter is to solicit your help in nominating qualified professionals to serve on the Idaho validating panel for the National Teacher Examinations (NTE).

The State Board of Education will require applicants for initial Idaho certification to attain minimum passing scores on the Core Battery of the NTE effective September 1, 1988. Those scores will be determined by a panel of Idaho educators drawn from a pool of nominees from elementary/secondary schools plus individuals selected from within Idaho colleges and universities. We are inviting you to submit the names of professionals who could well represent your organization, district and education in general. It is anticipated that nominees will be an accurate cross-section of certified Idaho personnel.

Each person nominated will be mailed a response form which will be returned to the PSC only if the individual is willing and able to serve. It will be from these positive responses that the final panel members are randomly selected. The name and community of all nominees will appear in the appendix of the full validation report prepared for the State Board.

What will be expected of persons eventually selected to the validation panel? First, each member will attend a validation meeting at one of three sites: Pocatello on October 19, Boise on October 21, or Moscow on October 26, 1987. The project will pay travel and per diem with the home district asked to assume the cost for substitutes. Second, panelists will devote a very full day (9-5) of intense concentration, similar in many respects to taking the test themselves. Third, a high degree of professionalism is needed - an objective attack on the task with minimal personal bias. These attributes are the reason we are seeking your assistance in identifying persons who can get the job done. It is perfectly acceptable to nominate yourself in this circumstance.

Finalists for the validation panel will receive a special mailing of project details. For interested persons you know, a brief description of the validation procedure is enclosed. Feel free to duplicate any of this request material for distribution.

Please submit the name and mailing address (home or school) for each nominee, postmarked, by September 8, 1987 to:

Darrell K. Loosle, Administrator
Professional Standards Commission
State Department of Education
Jordan Office Building
Boise, Idaho 83720

Phone nominations will be accepted by calling (208)334-4713 during business hours.

If questions arise concerning nominations or the project in general, call the above listed number.

Sincerely,

Darrell K. Loosle
DARRELL K. LOOSLE, Ed.D.
Administrator
Professional Standards Commission

Alan G. Zetler
ALAN G. ZETLER, Ed.D.
Director of Validation Study

DKL:AGZ:gs

Enclosure

P.O. Box 1002
Dillon, Montana 59725
(406) 683-4751

TO: Idaho Deans/Directors of Education

FROM: Alan G. Zetler, Idaho NTE Validation Director a.z.
Darrell K. Loosle, PSC Administrator

RE: Higher Education Representation on NTE Validation Panel

Most of you were in attendance at the Idaho PSC meeting on August 4 at which time the composition of the 40 higher ed representatives on the Content Review Panel was set. This memo serves to remind you of the numbers per institution and broach some other considerations.

The PSC deliberations established the following number of panel members:

Boise State University	10
College of Idaho	4
Idaho State University	9
Lewis-Clark State College	4
Northwest Nazarene College	4
University of Idaho	9
Total	40

It was also agreed that the three State Universities would invite one representative from the Community/Junior College in their respective service areas (BSU - C of I; ISU - Ricks; U of I - N Idaho) to be a member of the university team.

The Deans/Directors of Education from the six 4 year institutions will internally appoint those faculty or administrators they feel can best address the NTE Core Battery tests of Communication Skills, General Knowledge and Professional Knowledge. The departments from which members are selected is another internal decision.

You need not nominate individuals from within your institution as will the elementary/secondary schools. Simply send the final list of your college or university representatives to Darrell Loosle postmarked not later than September 22, 1987. This will insure the panels being fixed by the September 28 date called for in the research design timetable.

The total panel of 90 professionals will need to involve representation of the state's minority groups as required under federal EEO guidelines. Whether they come from elementary/secondary, from higher ed or from both is not critical. Therefore, if there are qualified females, racial and ethnic minority faculty available, give them consideration.

Persons appointed for your unit will receive a mailing of specific instructions prior to the panel meeting. These are to be held in Pocatello - October 19; Boise - October 21; Moscow - October 26. All meetings start at 9:00 a.m. and finish about 5:00 p.m.

Incidentally, some of the elementary/secondary people might nominate a few higher ed faculty to be validation panelists. We will pass these names on to you for your consideration.

Alan Zetler will be making a phone contact with each of you by early September to discuss content review in general and answer questions. Thank you for your involvement in this vital project.

VALIDATING THE NTE CORE BATTERY FOR IDAHO: WHY AND HOW?

The Idaho State Board of Education has made a decision to require minimal passing scores on each of the three Core Battery tests of the National Teacher Examinations (NTE) as a condition for obtaining initial Idaho certification.

Such a test with established cut scores is legal providing three conditions are met: (1) The content of the test is relevant to the job being performed (teaching in this case); (2) Persons taking the test have been exposed to its content (teacher education program); (3) The cut scores have been empirically determined from the judgements of experts (Idaho educators). These three steps collectively constitute a "validation," the results of which can be applied only to the specific population of Idaho applicants and only for the purpose of certification.

The NTE Core Battery tests three areas: (a) Communication Skills, including listening, reading, writing and essay composition; (b) General Knowledge, including literature/fine arts, mathematics, natural science and social studies; (c) Professional Knowledge, including psychology, methods, evaluation and the legal/organizational background of American public education.

Educators working in the elementary and secondary schools are nominated and randomly selected to serve as a Job Relevance validation panel. They examine each item on the Core Battery (about 350 questions) and record a private judgement to answer the question, "Is the content of this test item relevant to the job of a beginning Idaho teacher?"

Educators from the colleges and universities having teacher preparation programs are selected to form a Content Review validation panel. They judge each item to answer the question, "Is the student of teacher education in Idaho exposed to the content of this question in his/her preparation?"

Members from each of the two described panels then combine to form a Knowledge Estimation panel. This large panel is given the task of estimating what percent of "borderline test takers" (candidates apt to score somewhere near the eventual cut score - they may pass and they may not) would know the correct response to each test item.

Using standard analysis procedures, the results of the three panels are combined and translated to obtain an actual minimum expected score for each of the three Core Battery tests. The PSC and State Board look at this score and may modify it somewhat to arrive at the final minimum test scores acceptable for Idaho certification.

All panel members are asked to judge test items on all three areas of the test. Therefore, while a subject speciality is assumed, their perspective must be broad so as to examine the total preparation and job demands of a teacher. Selected persons and agencies in Idaho, including each school district, have been invited to submit the names of persons who could function well as panelists. Each nominee will be mailed a response form which will be

-over-

returned to the Idaho PSC if he/she is willing and able to serve. From this pool of respondents, fifty (50) teachers and administrators will be randomly selected for the Job Relevance panel. Colleges and universities will internally select a total of forty (40) faculty who will form the Content Review panel. The Knowledge Estimation panel will be therefore composed of ninety (90) individuals.

Panelists attend a validation meeting in one of three places: Pocatello - October 19; Boise - October 21 or Moscow on October 26. Meetings start at 9:00 am with a period of training and the task is usually finished by 5:00 p.m. Individual judgements are recorded privately on forms provided. There is no group consensus that has to be reached. The state pays for mileage, meals and lodging if necessary. Home districts or institutions are being asked to cover the cost of substitute teachers. Persons selected to the final panels will receive special instructions and information prior to the meetings.

Dr. Alan Zetler, Dean and Professor Emeritus at Western Montana College, has been contracted by the State to conduct the validation study. He did a similar study on the same test in Montana during 1985.

Validation is a legally and educationally justified process that has to be completed before Idaho grants or denies initial certification in the future. Idaho teachers, administrators, student service personnel and higher education staff are the experts whose judgements determine the state's expectations. Validation represents an opportunity for all sections of the educational community to participate in a common endeavor.

Appendix E
Public and Non-Public Professionals Nominated For Validation Panel

Note: Names and school locations are a composite from all nomination sources. Some errors in spelling or school location by town within larger districts may exist.

ABBOTT, BARBARA	PRESTON
ACCOLA, LINDA	MOSCOW
ADAMS, KEN	KELLOGG
AIKEN, DAVID	TROY
AINSWORTH, VICKEY	JEROME
ALBAN, JEANNE	TWIN FALLS
ALBIN, ANN	IDAHO FALLS
ALDER, IRENE	MALAD
ALDER, WENDY	MALAD
ALDER, BLANCHE	PRESTON
ALEXANDER, DANI JO	TWIN FALLS
ALMERICO, CHELSTE	IDAHO CITY
AMODT-CALDWELL, NANCY	IDAHO FALLS
ANDERSON, SUE	MACALL
ANDERSON, MARIANNE	POCATELLO
ANDERSON, JON	CALDWELL
ANDERSON, SUE	BLACKFOOT
ANDREW, CHERYL	CALDWELL
ANDREW, WILLIAM	GOODING
ANTHONY, REBECCA	PIERCE
APPLEGATE, CHARLOTTE	ST. MARIES
ARDINGER, ROSEMARY POWERS	IDAHO CITY
ARMSTRON, ANN	POCATELLO
ARNELL, LINDA	MONTPELIER
ARNESS, LINDA	MONTPELIER
ARROSSA, GEORGE	KIMBERLY
ASCHILMAN, CINDY	HAILEY
ATWOOD, SHIRLENE	PINGREE
AXTELL, SHELLY	BOISE
BAERLOCHER, DALE	ST. MARIES
BAILEY, PETER	BOISE
BAILEY, MARY	BURLEY
BALDWIN, BLAIR	BOISE
BALL, WILDA	DRIGGS
BALL, DAVID,	POTLATCH
BALLARD, DAVE	POST FALLS
BANG, JIM	BLACKFOOT
BARBER, CHARLES	RIRIE
BARLIER, CHARLES	RIRIE
BARNES, JOHN	HARRISON
BARRETT, GENE	BOISE
BARRETT, JENNIFER	VIOLA
BARRUS, MILTON	TWIN FALLS
BARRY, MARY LU	TWIN FALLS
BARTENHAGEN, JAN	ST. MARIES
BARTSCHI, ALICE	MONTPELIER

BASTIAN, GARY	BOISE
BAXTER, SUE ANN	EAGLE
BEEM, JACKIE	POCATELLO
BELNAP, PRESTON	POCATELLO
BELNAP, BRUCE	MONTPELIER
BENNETT, TERRI	NAMPA
BENNETT, ELSA	BOISE
BENNETT, PATRICIA	WEIPPE
BENNETT, RALPH	MALAD
BENNETT, BRUCE	CALDWELL
BENSON, DAVID	LEWISTON
BETTS, JANE	WEISER
BIELENBERG, CHERYL	GENESEE
BIGGS, LARRY C.	PRESTON
BIHLER, KATHRYN	COEUR D' ALENE
BIRCH, BLAINE	MADISON
BIRCH, PATTY	GREENLEAF
BIXLER, DOROTHA	BOISE
BLACK, PETE	POCATELLO
BLACKHAM, LORRAINE	POCATELLO
BLACKHAM, WILLIAM	POCATELLO
BLACKMAN, MARSHA	IDAHO FALLS
BLAIR, KELLEY	ST. MARIES
BLAISDELL, KRIS	MALAD
BLANDING, KAREN	IDAHO FALLS
BODELL, JOANN	IDAHO FALLS
BOLTON, JAN	CALDWELL
BOND, LARRY	SHOSHONE
BOOTH, PATRICIA	HAYDEN LAKE
BOWEN, JERROLD	NAMPA
BOWLER, ORSON L.	PRESTON
BOWMAN, JOAN	POCATELLO
BRADEN, BILL	BOISE
BRADEN, AMY	BOISE
BREWER, BOBBIE	BOISE
BRIGGS, BETTY	ST. ANTHONY
BRIMHALL, ROSLYN	MALAD
BRIZZEE, NANCY	IDAHO FALLS
BROWN, DAN	UCON
BROWN, PAT	LEWISTON
BROWN, ANN	BOISE
BROWN, SARAH	POCATELLO
BRUCE, JIM	LEWISTON
BRYNE, LYNNE	TERRETON
BUNDERSON, FLOYD	MONTPELIER
BUNDERSON, JOAN	MONTPELIER
BURBANK, ALAN	PRESTON
BURDICK, JUDY	MONTPELIER
BURKE, DELMAR	BOISE
BURNETT, SHERRIE	MALAD
BURNETT, TIM	MALAD
BURNS, DIANE	BOISE
BURSTEDT, SUSAN	POCATELLO
BUSHMAN, KEVIN	BURLEY

BUTTCANE, SUSAN	TWIN FALLS
BUTTERFIELD, PAT	KETCHUM
BUYS, LAWRENCE R.	PRESTON
BYRAM, JOY	GOODING
BYXBEE, JUDY	COEUR D' ALENE
CABBAGE, NELLY	GOODING
CAIRNS, EVELYN	BLACKFOOT
CALL, SHARON	POCATELLO
CAMPBELL, DENNIS	GOODING
CAMPBELL, BRUCE R.	WEISER
CANO, PHILIP	AMERICAN FALLS
CARLSON, SUSAN	BONNERS FERRY
CARLSON, REID C.	PRESTON
CARROLL, ELIZABETH	ST. MARIES
CARTER, VICKY	BONNERS FERRY
CASE, DAVID	LEWISTON
CATTANI, KARLA G.	PRESTON
CAUGHLIN, CINDY	BOISE
CHANDLER, VICKI	BRUNEAU
CHATTERTON, DALE	SHOSHONE
CHAVEZ, JERRY	LEWISTON
CHAVEZ, JUDY	MOSCOW
CHESTER, CURT	WEISER
CHILCOTE, DICK	TWIN FALLS
CHIN, CLAIRE	MOSCOW
CHOY, BENNY	NAMPA
CHRISTENSEN, PERCY	BRUNEAU
CHRISTOFFERSON, MARIE S.	POCATELLO
CHUGG, POLLY	PRESTON
CLARK, JODY	BOISE
CLARK, LINDA	BOISE
CLUTE, LOA	IDAHO FALLS
COFFIN, MARY	POST FALLS
COLEMAN, CAROL	LEWISTON
COLLINS, DAN	POCATELLO
CONDIE, MARY	GOODING
CONQUERGOOD, JOHN	IDAHO FALLS
CORBRIDGE, RENA	PRESTON
CORNERLY, JANENE	LEWISTON
COSSETT, GREG	POST FALLS
COSTA, RENAE	COEUR D' ALENE
COWIN, SHIRLEY	MOSCOW
COWLISHAW, DAVE	MALAD
CRAWFORD, CAROLYN	BLACKFOOT
CRAWFORD, GEORGE	WENDELL
CREEK, CLAUDIA	TWIN FALLS
CRESWELL, SAM	NAMPA
CRIDER, KAREN	TWIN FALLS
CROOKS, JALAIR	POCATELLO
CROSBY, LINDA	POCATELLO
CROSHAW, MAXINE	POCATELLO
CROSLAND, ROBERT J.	PRESTON
CROSSM, RAY	CAREY
CROWLEY, POLLY	POST FALLS

CROWSHAW, MAXINE	POCATELLO
CRUMB, MARIE	TROY
CRUMBAUGH, VERNELL	IDAHO FALLS
CUMMINGS, CORA	ANTHONY
CUMMINGS, MIKE	SHELLEY
CUMMINGS, SAM	ST. MARIES
CUMMINGS, BETTY JO	POCATELLO
CURRIE, PAUL	PINEHURST
DANEILS, DALE	MALAD
DARTER, MARTHA	ST. MARIES
DAVIES, JEFF	POCATELLO
DAVIS, ROBERT	BOISE
DAVIS, ERIC	POCATELLO
DAVIS, JOE	MALAD
DEAN, WILLIAM	SPOKANE
DEARING, FRANCIS	SUGAR CITY
DEIBERT, BECKY	TWIN FALLS
DEIDE, LOIS	NAMPA
DENNISTON, MARILYN	IDAHO FALLS
DETMAR, LINDA	NAMPA
DION, VERONICA	POST FALLS
DIXON, JANICE	IDAHO FALLS
DOBBS, WILEY	TWIN FALLS
DONALDSON, JODI	MOSCOW
DONICHT, CANDIS	BLACKFOOT
DRAKE, JUDY	COEUR D' ALENE
DRENNAN, JAN	FILER
DUCKER, EVERETT	POCATELLO
DUNBAR, LINDA	SHELLEY
DUNCAN, MARY SUE	LEWISTON
DUNHAM, LINDA	TROY
DURFEY, SCOTT	SHELLEY
EDEN, MARSHA	TWIN FALLS
EDWARDS, GAYLIN	SHELLEY
EIMAN, GAYLE	IDAHO FALLS
ELLEFSON, BRUCE	BOISE
ELSER, DALEE	IDAHO FALLS
ELYARD, MEG	COEUR D' ALENE
ENGELERT, SISTER LILLIAN	BOISE
ESPIL, BERRY	HANSEN
ETCHEVERRY, LYNNE	MONTPELIER
EVANS, DENNIS	MALAD
EVANS, KERRY	MALAD
EVANSON, DOTTIE	MALAD
EVENSON, RICHARD	HANSEN
FABRICIUS, TERESA	GENESEE
FARMAN, BONNIE	IDAHO FALLS
FASOLINO, ALETHIA	MOSCOW
FELTS, TERRY	IDAHO FALLS
FINDLAY, REED	SHOSHONE
FINNERTY, MAUREEN	IDAHO FALLS
FISHER, GERALDINE	WALLACE
FLEMING, SUSAN	POCATELLO
FONG, RICHARD AH	BOISE

FORREY, RAY	BOISE
FORSNESS, ANN	REXBERG
FOUNDS, ROSEMARY	LEWISTON
FRACZ, JAMEY	MOSCOW
FRANCIS, JIM	IDAHO FALLS
FREEBURN, MARTY	ABERDEEN
FRENCH, LEXIE	IDAHO FALLS
FRYE, BILL	MOSCOW
FUHRIMAN, SHAUNNA	PRESTON
FULLMER, LAMAR	SUGAR CITY
FUNK, TAMMY	DEARY
FUNK, SCOTT	LEWISTON
GAHL, CONNIE	CASCADE
GALLEGOES, LARUE	PINGREE
GAMMACHE, TOM	KAMIAH
GIARDINELLI, KERRI	LEWISTON
GIBBONS, CAROLYN	IDAHO FALLS
GISIN, EVELIN	FIRTH
GLEASON, CHRIS	BOISE
GOBLE, RONALD	TROY
GOLIGHTLY, MARVIN	PRESTON
GONZALES, LOREL	GOODING
GOOLD, MARY	BLACKFOOT
GRAHM, MARIE	GARDEN VALLEY
GRANT, PEGGY	NAMPA
GREGOR, LELACE	BOISE
GRIFFIN, MARGARET	POCATELLO
GRIGG, BOB	KELLOGG
GRUSSING, KATHLEEN	COTTONWOOD
GUAY, LINDA	IDAHO FALLS
GUENTHNER, TERRI	CALDWELL
GUESS, DIANA	TWIN FALLS
GUESS, GALEN	TWIN FALLS
GUILFORD, JACI	BOISE
GUMM, JUDY	POCATELLO
GUNNELL, JAN	MALAD
GUNNING, TERRY	TWIN FALLS
GUNTER, PAT	POCATELLO
GUNTER, DORIS	POCATELLO
HADDOX, JO	DRIGGS
HADLEY, TED	TWIN FALLS
HAEBERLE, JIM	REXBERG
HAFFNER, SUE	SHOSHONE
HAINES, SANDRA	BOISE
HALLOCK, RINA	NOTUS
HAMBLIN, EARL	DRIGGS
HAMMONS, ELLEN	POST FALLS
HAMPTON, JESSIE M.	PRESTON
HAMPTON, RON	IDAHO FALLS
HANCE, PAM	SPOKANE
HANKS, DAVID	BURLEY
HANSHEW, RODGER	BOISE
HANSON, ROSE	BLACKFOOT
HANSON, RODNEY	NAMPA

HARMAN, PAUL	NAMPA
HARMISON, MICKIE	AMERICAN FALLS
HARPER, PAM	CASCADE
HARPER, DIANE	BOISE
HARRACH, RUSS	EMMETT
HARRIS, LISA	CALDWELL
HARRISON, KATHY	PINEHURST
HARTER, GAYLORD	WALLACE
HARTER, LINDA	WALLACE
HATCH, RALPH	BRUNEAU
HATCH, NOVA	BRUNEAU
HAUGHT, ALICE	SHOSHONE
HAVILAND, ELYSE H.	PRESTON
HAWKS, JUDY	COEUR D' ALENE
HAWKS, DEANNE	ST. MARIES
HAYASHIDA, DEAN	CALDWELL
HAYE, KEYTON	OROFINO
HEIDENREICH, MARTHA	ST. MARIES
HELBLING, KATHY	LEWISTON
HELGESON, GERRY	BOISE
HELLER, RUSS	BOISE
HELM, GLORIA	MONTPELIER
HENDERSON, BLAIR	PRESTON
HENDRICKSON, PHILLIS	CAREY
HESS, LEE	MALAD
HIBBERT, DARLENE	SNAKE RIVER
HILL, HELEN	NAMPA
HILL, PAT	WALLACE
HILL, TERRY	MALAD
HILL, BEVERLY	POCATELLO
HILLBERT, DARLENE	BLACKFOOT
HINES, JIM	POTLATCH
HIRTE, BEULAH	WALLACE
HJORTH, LYNN W.	PRESTON
HOBSON, BOBBIE	BOISE
HOCKING, KATHY	DEARY
HODGDON, SHIRLEY	WALLACE
HOFFMAN, CARL LAVON	PRESTON
HOFFMAN, JANET	WALLACE
HOFFMANN, DON	COTTONWOOD
HOILAND, SUE	WALLACE
HOLLENBECK, ELSIE	BONNERS FERRY
HOLSINGER, DAVID	BOISE
HONG, MAMOY	POCATELLO
HOOLEY, DAVE	MERIDIAN
HOPE, JERRY	WENDELL
HORNER, KAY	TWIN FALLS
HORTON, KAREN	IDAHO FALLS
HOWARD, MARILYN	ARCO
HUFF, GARY	DRIGGS
HUGGINS, CHARLIE	ARCO
HUGHES, HALI	PRESTON
HUGHES, LATAINE	BUHL
HUNZAKER, DON	TWIN FALLS

HURST, JOY	BURLEY
HUSSMAN, CINDY	PIERCE
HUTCHINSON, MELANIE	TWIN FALLS
HYDE, JON W.	PRESTON
HYMAS, JUDY	OVID
IRETON, SHARON	MOUNTAIN HOME
ISITT, LARRY	COEUR D' ALENE
IVERSON, MARGARET	BOISE
IVERSON, RALPH	BOISE
JAMES, JOYCE	BLACKFOOT
JAQUES, MERLE	HAILEY
JEMMETT, BETTY	TERRETON
JENNINGS, MARY	COTTONWOOD
JENSEN, LA DAWN C.	PRESTON
JENSEN, MARY	MERIDIAN
JENSEN, MARY	MERIDIAN
JENSEN, JANICE	BLACKFOOT
JENSEN, DAVE	PRESTON
JENSEN, GAIL	TROY
JOHNSON, LEX COREY	PRESTON
JOHNSON, RUTH	POCATELLO
JOHNSON, KRISTA	IDAHO FALLS
JOKI, MARK	BOISE
JONES, LA DEAN F.	PRESTON
JONES, BONNIE	BOISE
JONES, TERRY	MALAD
JONES, MARSHA	MALAD
JONES, MARIAN	POCATELLO
JONES, BONNIE	BOISE
JUDD, JUNE	ST. MARIES
KAUFMAN, MARSHA R.	PRESTON
KAYLOR, GLORIA	BOISE
KAZDA, LINDA	LEWISTON
KEISER, DALE	SPOKANE
KEITH, DON	TWIN FALLS
KELPIN, JACK	CALDWELL
KENT, HOWARD,	BONNERS FERRY
KERNS, DORIS	SMELTERVILLE
KIDDER, BRETT	BOISE
KIMBALL, LORRAINE	FISHHAVEN
KING, NANCY	ABERDEEN
KING, JUDY	BLACKFOOT
KINYON, CONNIE	CASTLEFORD
KIRKLAND, ROSALEI	CAREY
KIRKPATRICK, MIKE	WEIPPE
KISSINGER, NELDA C.	PRESTON
KISTLER, MARILYN	TWIN FALLS
KLEPPIN, LYLE	WEISER
KLEPPIN, JERI	WEISER
KLUKSDALE, GARY	BOISE
KNAPP, JESSIE	POCATELLO
KNIGHT, MARY	POST FALLS
KNOWLES, TIM	SHOSHONE
KNUTSON, BYRON	MALAD

KOBS, BARBARA	COEUR D' ALENE
KOCH, ALFRED W.	PRESTON
KOETTER, KURT	RATHDRUM
KOLP, MARI ROSE	ARCO
KOVICK, RON	MIDDLETON
KRIES, DAVE	KAMIAH
KROOS, JUDY	BOISE
KUNZ, KATHY	PRESTON
KURTZ, BARBARA	ARCO
LABAU, JUDY	WALLACE
LAGE, CAROLYN	WEIPPE
LAGERSTRON, DICK	BOISE
LANCASTER, CAROLYN	TWIN FALLS
LANDES, JUSTINE	POTLATCH
LANE, PETE	GRANGEVILLE
LANGE, DIANE	IDAHO FALLS
LANGERSTROM, DICK	BOISE
LANTING, GREG	FILER
LARSON, KAREN	NAMPA
LEACHMAN, LAURIE	LEWISTON
LEIGH, NATHAN	PARMA
LEONARD, ANNE	BOISE
LERCH, ANNABELLE	POCATELLO
LEWIS, ELEANOR	PRESTON
LEWIS, RAY	BOISE
LIMBAGO, MARY LOU	CALDWELL
LIND, CHRIS	COEUR D' ALENE
LITTLEEKER, CATHY	POCATELLO
LODGE, LORI	BOISE
LOEBER, LES	GRANGEVILLE
LOFTUS, GARY	BLACKFOOT
LOSTROM, TERRY	BOISE
LOVAN, MARGO	CALDWELL
LOVELAND, LES	BOISE
LOWEL, DONE	MONTPELIER
LOWRANCE, ELAINE	IDAHO FALLS
LUNDAK, BURT	SANDPOINT
LUPO, PAT	WORLEY
LUVAAS, KATHY	BOISE
MACAUSLAND, LYNN	IDAHO FALLS
MACKENZIE, MARY	BOISE
MADSEN, FRANK	MALAD
MAIN, JUDY	IDAHO FALLS
MALM, BRAD	TROY
MALONEY, DAN	BOISE
MANNING, GAYLEA	MONTPELIER
MARIN, MARYA	IDAHO FALLS
MARKINS, CAROL	POCATELLO
MARKS, RODGER	CRAIGMONT
MARKS, VANETA	WINCHESTER
MARSHALL, JOSEPHINE	LEWISTON
MARTEENY, DAN	MALAD
MASSEY, SHARON R.	MOUNTAIN HOME
MASTERSON, GARRETT	BOISE

MATSON, DARLENE	HAILEY
MATTSON, KATHRYN	WEISER
MAY, RICHARD	ASHTON
MCCLURE, ED	ABERDEEN
MCDONOUGH, KARON	BOISE
MCDOWELL, WALLY	HOMEDALE
MCFARLAND, BILL	ST. MARIES
MCGOUGH, DOROTHY	CRAIGMONT
MCHUGH, PAT	BOISE
MCNEAL, VICKI	NAMPA
MCPHEETERS, JOHN	REXBERG
MEDVED, SANDRA	COEUR D' ALENE
MELTON, KAREN	POST FALLS
MENDOZA, STEVE	BOISE
MESKE, DUANE	LEWISTON
MESKE, RONA	LEWISTON
MIKELSON, RAY	POST FALLS
MIKESELL, DIANE	MALAD
MILLER, MARJ	IDAHO FALLS
MILLER, KATIE QUIE	MOSCOW
MILLIGAN, CONNIE	MOSCOW
MILLS, CAROL	IDAHO FALLS
MILLS, PATTY	GREENLEAF
MITCHELL, DAN	REXBERG
MITCHELL, CHERI	SPRINGFIELD
MITCHELL, DAVID	PRESTON
MITCHELL, SHERI	AHSAHKA
MONTAGUE, MATTHEW G.	PRESTON
MONTGOMERY, JOANN	IDAHO FALLS
MOORE, JERRY	PRESTON
MOORE, JOHNETTE	LEWISTON
MORRELL, ELDON	FIRTH
MORRIS, LELA	SUGAR CITY
MOTTERN-HIGH, JANICE	TWIN FALLS
MOWER, RON	AMERICAN FALLS
MULALLEY, LINDA	LEWISTON
MULDOON, MONTE	BOISE
MURDOCK, MARK	TROY
MURPHY, KELLY A.	CASTLEFORD
MURPHY, SHIRLEY	IDAHO FALLS
MUSIC, LAURA	IDAHO FALLS
NAKAMURA, MARSHA	NAMPA
NALDER, LARRY	HOLBROOK
NEIL, GINGER	BOISE
NELSON, HOWARD D.	PRESTON
NELSON, SARA	PRESTON
NELSON, BEVERLY	TWIN FALLS
NETTINGA, ROBIN	NAMPA
NEWELL, SANDRA	POST FALLS
NEWMAN, LARRY	COTTONWOOD
NEWTON, STEPHEN	IDAHO FALLS
NICHOLSON, R.L.	TWIN FALLS
NIELD, MARDENE	PAUL
NIELSEN, JANICE	PRESTON

NIELSEN, CRAIG	PRESTON
NIELSON, JAY	OROFINO
NIRK, JANIE	POTLATCH
NORTON, STEVE	MOSCOW
NOYES, MARSH ANN	PRESTON
NUNLIST, LISA	POST FALLS
O'BRIEN, DEE	DRIGGS
O'NEAL, JOAN	POCATELLO
ODELL, JAMES	BLACKFOOT
OLDS, KAREN	POCATELLO
OLSEN, RUTH	POCATELLO
OLSON, ROBERT	COEUR D' ALENE
OLSON, CHRIS	BOISE
ORERO, BECKY	POCATELLO
ORRISON, NANCY	CALDWELL
ORTON, PENNY	BOISE
OWEN, KELLI	PRESTON
OWEN, TOM	AMERICAN FALLS
OWENS, GRACE	POCATELLO
PAANANEN, PAULA	PIERCE
PALANIVIK, STEPHEN E.	IDAHO FALLS
PALMER, JOHN	PRESTON
PALMER, PAM	NAMPA
PARKER, KENNETH	MOSCOW
PARKER, VERLYN	MONTPELIER
PATRICK, THOMAS	GENESEE
PATTERSON, JUDY	IDAHO FALLS
PAULIN, RANDY	HARRISON
PAYNE, LINDA	SHOSHONE
PECKHAM, MARY	LEWISTON
PENGELLY, LAURE	BOISE
PERCH, JIM	POCATELLO
PERERSON, ARLINE	POCATELLO
PERKINS, MARIDEE	IDAHO FALLS
PERRY, JEAN	BOISE
PETERSON, GEORGE	REXBERG
PETERSON, JOHN	COEUR D' ALENE
PETERSON, MIKE	ABERDEEN
PETERSON, PAMELA	GOODING
PETERSON, SHIRLEY	HAGERMAN
PETROCH, LEANNE	GOODING
PFEFFERKORN, ELVIN	OROFINO
PFEFFERLE, REID	TWIN FALLS
PHELPS, MARDEN	MONTPELIER
PHILLIPS, SALLY	ARCO
PHILLIPS, PEGGY	JULIAETTA
PIERCE, CATHY	ST. MARIES
PLAMONDON, PAT	COEUR D' ALENE
PLUMLEE, ARDYCE	COEUR D' ALENE
PLYER, JUDY L.	MOUNTAIN HOME
POLLIN, MARCIE	COEUR D' ALENE
POLLOCK, MINDY	OROFINO
POOLE, GAYLE	FIRTH
PORTER, ROBIN	VIOLA

POTTENGER, MARY JO	HOMEDALE
POTTER, NANCY	IDAHO FALLS
POTTER, BRIAN	MALAD
POWELL, DIANE	BLACKFOOT
PRATT, DIANNE	POST FALLS
PRATT, BILL	COEUR D' ALENE
PRATT, CAROLYN	SHOSHONE
PRESTRIDGE, DARRO	POCATELLO
PRESTWICH, MARGIE	IDAHO FALLS
PRICE, BETTY	HAYDEN LAKE
PRICE, TAMMY	MALAD
PRICE, JIM	DRIGGS
PRITCHETT, MARIAN	BOISE
PUDELKO, JOHN	NAMPA
PUGMIRE, JAREN	ST. CHARLES
PUGMIRE, DALEEN	MONTPELIER
PURAY, MARK	BOISE
PYRON, KAREN	ARCO
QUANN, BILL	BELLEVUE
QUEEN, MARION	WEISER
RADFORD, ROBERT	ROCKLAND
RAGAN, JILL	IDAHO FALLS
RAINEY, ROBERT	TERRETON
RANDALL, SCOTT	MENAN
RANDLEMAN, JUDY	WEISER
REARS, ALICE	PIERCE
REED, HAROLD	GOODING
REED, BARBARA	GOODING
REESE, KAREN	BLACKFOOT
REMALEY, SUE	TWIN FALLS
RETTER, SHELLEY	MIDDLETON
RICHARDSON, JANET	COTTONWOOD
RICHARDSON, GERRY	COTTONWOOD
RICHETTS, KEITH	MERIDIAN
RICHINS, LAURIE	MALAD
RIDOUT, JEAN	WALLACE
RIEBE, MELISSA	BOISE
RIGGERS, JOAN	NEZPIERCE
RINGO, SHIRLEY	MOSCOW
ROARK, SHERRI	MARSING
ROBB, TOM	BOISE
ROBERTS, DUANE	BOISE
ROBINSON, MARY ANN	GRAND VIEW
ROBINSON, DELORIS	GOODING
ROBSON, JEANIE	IDAHO FALLS
ROGERS, CARLYNN	COEUR D' ALENE
ROLSTAD, KYRA	WEIPPE
ROPER, VICKY	GOODING
ROUNDS, CAROL	POCATELLO
ROY, KRISTINE	TWIN FALLS
RUDKIN, ROBERT	BOISE
SANCHEZ, WENDT	ST. MARIES
SANT, ANTHON LEON	KIMBERLY
SARE, KEN	REXBERG

SAUL, FRANKIE	POCATELLO
SAVAGE, BILL	IDAHO FALLS
SCHARNHOST, MARIE	POTLATCH
SCHLAEFER, LOIS	MULLAN
SCHOOLCRAFT, MARY	GOODING
SCHRODER, DIANE	WALLACE
SCHULTZ, VIRGIL	DRIGGS
SCHWARTZ, JEAN	MALAD
SCOTT, MARY	BLACKFOOT
SCOTT, DIANA	EAGEL
SCOTT, KENT	MALAD
SEE, JIM	MULLAN
SEHMEL, LARRY	ARCO
SEMKO, DAVE	COEUR D' ALENE
SERVICE, ANASTASIA	POCATELLO
SERVOSS, MARVA	MALAD
SHEA, ROBERTA	BOISE
SHEPPERD, TIM	POST FALLS
SHERMAN, JIM	OROFINO
SHIVELY, JERRY	IDAHO FALLS
SHOWS, RON	LEWISTON
SHUMWAY, MARIAN	PRESTON
SHUMWAY, BRAD	PRESTON
SKEEN, SUE	MALAD
SKILLE, CAROLYN	POTLATCH
SKINNER, DOUGLAS	WENDELL
SKYLAR, SHAYNA	BOISE
SLOAT, JOAN	POCATELLO
SLOYKA, ROBERT	COEUR D' ALENE
SMITH, CARI	LEWISTON
SMITH, HYRUM K.	PRESTON
SMITH, JOYCE	CHALLIS
SMITH, ROY	RIRIE
SMITH, KAREN	PRESTON
SMITH, KIM	DRIGGS
SMITH, KING	PRESTON
SMITH, STEVE	THATCHER
SMITH, VICKI	HAILEY
SMITH, LARON	TWIN FALLS
SMITH, ETHEL R.	DEARY
SMITH, STEPHEN J.	PRESTON
SNAPP, KAY	NAMPA
SNEDDON, MARY LOU	BOISE
SNIDER, JANE	BOISE
SOMMER, ARLENE	TWIN FALLS
SORENSON, TAMMY	IDAHO FALLS
SOWARDS, BETTY ANN	MOORE
SPARKS, ARALEE	MONTPELIER
SPERRY, LAREE	MALAD
STALLCOP, BECKY	NAMPA
STALLINGS, MERLE	BLACKFOOT
STANKO, ROSANN L.	PRESTON
STANLEY, PAT	FILER
STANTON, GARY	COEUR D' ALENE

STARK, SUE	NAMPA
STAYNER, LYNN	MALAD
STEBBINS, JUDITH	POST FALLS
STEINBIS, GORDON	HAILEY
STEINER, MICHAEL	BOISE
STEVENS, MARK	HOMEDALE
STEVENS, MARILYN	FILER
STEVENSON, COLLETTE	CHALLIS
STEVENSON, ALICE	VICTOR
STEWART, TINA H.	PRESTON
STICKLER, YVONNE	LEWISTON
STODDARD, JOAN	TERRETON
STOKES, NED	HOMEDALE
STONE, BETTE	CRAIGMONT
STONTON, GARY	TWIN FALLS
STREUBEL, JANE	POCATELLO
STRONG, MELVIN	DRIGGS
STUART, CINDY	IDAHO FALLS
SUMMERS, DEBORAH N.	PRESTON
SURRATT, AMANDA	COEUR D' ALENE
SUTTON, JOANNE	MOSCOW
SUYERA, JOHN A.	MOSCOW
SWEIGART, RAY	POCATELLO
TALBOT, MARY LOU	MONTPELIER
TAYLOR, DENISE	BLACKFOOT
TAYLOR, JODY	AMERICAN FALLS
TAYLOR, MARY LOU	BOISE
TAYLOR, BERYL	POCATELLO
TAYLOR, LARRY	CALDWELL
TAYLOR, JENNIFER	TWIN FALLS
TEETER, GAIL	POST FALLS
TERHARK, JEAN	COEUR D' ALENE
THOMAS, NOLA	MALAD
THOMAS, DIANA	WEISER
THOMAS, VAN	TROY
THOMAS, JAMES	SUGAR CITY
THOMPSON, CONNIE	MURTAUGH
THOMPSON, MARYANNE	TWIN FALLS
THOMPSON, ETTA	REXBERG
THORPE, BRAD	MALAD
THROPE, PAULA	MALAD
TOLMAN, ROBERT	IDAHO FALLS
TORELLI, JOE	LEWISTON
TORGERSON, THEDA	BLACKFOOT
TOSENBAUM, REX	NAMPA
TRUEMAN, VICCI	FERNWOOD
UHRING, KATHY	TWIN FALLS
UNDHJEM, VIRGINIA	TWIN FALLS
UPTMOR, KAYE	COTTONWOOD
VALCARCE, SUSAN	PRESTON
VAN ORDEN, SUSAN	POCATELLO
VAN ENGELEN, DEBBIE	TWIN FALLS
VANIKIOTIS, HARRY	FILER
VAUGHAN, SHELDON	MALAD

VEVIG, JERRY	BOISE
VOGEL, JAMES R.	TROY
VOGT, STAN	POCATELLO
VOGT, PEGGY	POCATELLO
WADDOUPS, ROYAL	MOORE
WADDOUPS, JERRY	PRESTON
WADDUPS, WAYNE	SHOSHONE
WALLINE, JEFF	RIGBY
WAMPLER, CRAIG	ABERDEEN
WARD, JON	MALAD
WARD, HELEN	MALAD
WARD, ANN	MALAD
WARD, PAM	POCATELLO
WARD-ENGELKING, JANIE	BOISE
WARREN, DOROTHY	DRIGGS
WATSON, LARRY	TWIN FALLS
WAYENBERG, JUDY	GRANGEVILLE
WEBB, BARBARA	TWIN FALLS
WEBER, SALLIE	NAMPA
WEBER, VICTORIA,	GEORGETOWN
WEEKS, CORAL	PRESTON
WEITFLE, MARION	IDAHO FALLS
WELCH, MARJORIE	ST. MARIES
WELLS, VIVIAN	TWIN FALLS
WELLS, KAREN	BLACKFOOT
WESENBERG, JANICE	AMERICAN FALLS
WEST, LAMAR	ABERDEEN
WHATOOTT, MARJORIE	MADISON
WHITCRAFT, MARY	GENESEE
WHITMORE, VIC	BOISE
WHITWORTH, KATHY	PRESTON
WHYTE, MOLLY	PRESTON
WILDE, PAULA	REXBERG
WILDE, DENNIS	BOISE
WILDE, WARREN D.	PRESTON
WILL, MICHELLE	SHOSHONE
WILLIAMS, NORENE	TWIN FALLS
WILLIAMS, BRENT	PRESTON
WILLIAMS, DARREL	TERRETON
WILLIE, JULIE	MALAD
WILLIE, CAROL DAWN	MALAD
WILSON, CAROLYN	WILDER
WILSON, COLLEEN	IDAHO FALLS
WILSON, LEONARD,	WILDER
WILSON, DIANE	OROFINO
WINSTON-POWELL, BARBARA	BOISE
WOLFLEY, IRETA	IDAHO FALLS
WOMACK, GEORGIA ELAINE	PRESTON
WOOD, BETTY JO	MERIDIAN
WOODMAN, CARLYE	IDAHO CITY
WRIGHT, DAVE	OROFINO
WRIGHT, DARLENE	TWIN FALLS
WYNDHAM, JANE	POCATELLO
YAMADA, FRANCES	BLACKFOOT

YAMAMOTO, GRACE	CALDWELL
YEOMAN, ROBERT	LEWISTON
YODER, ADRIANNE	NAMPA
YOSS, MARGARET	MIDDLETON
YOUNG, LOUISE	IDAHO FALLS
YOUNG, KATHY	BOISE
YOUNG, BARBRA	KUNA
YOUNGERMAN, STEPHANIE	BOISE

Appendix F

Nominee Response Form No.___
Idaho NTE Core Battery Validation

Note: If you do not wish to respond to any item, please designate "NR".

Name ______________________________

Address ______________________________

____

Home Phone ______________________________

Business Phone ______________________________

District or Agency Employer ______________________________

	Male__________	Female__________
Race or Ethnic background	White__________	Hispanic__________
	Black__________	Asian__________
	Native American______	Other__________

Current Position
Elementary Teacher__________
Secondary Teacher__________
Administrator__________
Pupil Personnel Services__________

Please return to: Dr. Darrell K. Loosle, Administrator,
Professional Standards Commission
Department of Education
Jordan Office Building
Boise, Idaho 83720

POSTMARKED NO LATER THAN SEPTEMBER 22, 1987.

Appendix G
Random Selection Process for Job Relevance Panelists
Total Panel = 50

Step 1: Returned response sheets from nominees was divided into regions and then subdivided within regions into school activity groups. Sheets were hand numbered consecutively as follows:

	Numbers Assigned	Numbers Assigned by Activity
North Region	1 - 104	1-5 PPS 6-11 Administration 12-104 Teachers
South Region	105 - 197	105-106 PPS 107-116 Administration 117-197 Teachers
East Region	198 - 396	198-202 PPS 203-217 Administration 218-396 Teachers

Step 2: Sheet No. 360 representing a Hispanic teacher pulled and placed on job relevance panel.

Step 3: Controlling N's by region and school activity:

Region	Total N	PPS	Admin.	Teachers
North	15	1	1	13
South	20	1	1	18
East	15	1	1	13
Totals	50	3	3	44

Step 4: Combine steps (1) and (3). Use the first three digets from random number tables to select response sheets. Use different sections of random tables for each region.

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Step 5: Record numbers selected until correct N's reached. Results as follows:

Region	PPS	Administration	Teachers	
North	005	006	100	020
	002-Alt.	008-Alt.	084	053
			098	035
			044	062
			091	013
			083	055-Alt.
South	106	112	195	142
	199-Alt./	113-Alt.	128	144
	East		164	134
	(# 105 disqualified)		175	118
			193	140
			173	148
			182	154
			131	177
			190	179
				123-Alt.
East	201	208	386	277
	198-Alt.	205-Alt.	251	258
			368	372
			395	295
			344	324
			309	317
				358-Alt.

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Idaho NTE Core Battery Validation
Panel Meeting Agenda

I. Mechanics

- Introduction
- Roll call: Guests
- Campus announcements and parking
- Logistics for the day
- Travel claims

II. Description of the Validation Process

- Panel tasks in general
- Disposition of panel judgments
- Charge to the panel

III. Test and Response Forms Packet

Job Relevance	Content Review
	Nominee Response Form
Release Form	Release Form
Essay Samples (14)	Essay Samples (14)
Essay Classification	Essay Classification
Standard Setting - Essay	Standard Setting - Essay
Grid Sheets (10)	Grid Sheets (10)
	Emphasis Evaluation (4 sheets)
	NTE Content Description
Blank Comment Sheets	Blank Comment Sheets
Communications Test	Communications Test
General Knowledge Test	General Knowledge Test
Professional Knowledge Test	Professional Knowledge Test

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- IV. Directions for Completing the Task
    - General directions
        - The concept of the "minimally qualified candidate"
        - Individual professional judgments

    - Specific directions
        - The essay
            - Samples
            - Pass/fail check
            - Holistic evaluation
            - Single question for standard setting
        - Multiple choice item responses
            - Heading the response sheets
            - Job Relevance or Content Review options
            - Knowledge estimation
                - Percent knowing correct answer
                - Guessing factor disregarded
            - Bias check and comment
            - Use of DNK
            - Special arrangements for the listening subtest

    - Omitted content and other comments

- V. Sequence of test review

- VI. Special directions for content review

- VII. Checking materials at completion

Appendix I
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IDAHO NTE CORE BATTERY VALIDATION

Release Form

Name ______________________________

Check One

____ I agree to have my name, address and professional responsibility included as part of the final validation report to the State Board of Public Education. I understand that the report will be public knowledge.

____ I do not wish to have my name, address and professional responsibility included as part of the final validation report to the State Board of Public Education.

Signature ______________________________

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Panel Participants by Function & Region: Authorized Name Release

Southeast region
Meeting Site: Idaho State University, Pocatello

Job Relevance/Knowledge Est.		Content Review/Knowledge Est.
Wilda Adair Ball	Driggs	Idaho State University
Jackie Beam	Pocatello	Dr. Dante Cantrill
Marsha Eden	Twin Falls	Dr. James Grivan
Earl hamblin	Tetonia	Dr. Stephanie Salzman
LaDean F. Jones	Preston	Dr. Mack Smith
Carol Mills	Idaho Falls	Dr. Carol Stenson
Beckie Otero	Pocatello	Dr. Patricia Whitfield
Grace W. Owens	Pocatello	Ricks College
Carol M. Rounds	Pocatello	Dr. Jim Gordon
Larry R. Schmel	Arco	
Vicki Smith	Hailey	
Wayne J. Waddoups	Shoshone	
Paula L. Wilde	Rexburg	
Julie P. Willie	Malad	

Southwest Region
Meeting Site: Boise State University, Boise

Jim Bolton	Caldwell	Boise State University
Cynthia Caughlin	Boise	Dr. Ken Hill
Lois Darnall Deide	Nampa	Dr. John Jensen
Connie M. Gahl	Cascade	Dr. William Kirtland
Marie Graham	Garden Valley	Dr. Robert Simms, Dean
Diane Harper	Boise	Dr. Steven Thurber
Russell W. Harrach	Emmett	Dr. Wenden Waite
Terri Guenther	Caldwell	Dr. Marcia Wicklow-Howard
Geraldine Kleppin	Weiser	Dr. Jerry Young
Brenton A. Kidder	Boise	Dr. Driek Zirinsky
Judith Truell Kroos	Boise	North Nazarene College
Marsha Nahamura	Nampa	Dr. Dennis Cartwright
Laure Pengelly	Boise	Dr. Jim Mikkelson
Marian Pritchett	Boise	Dr. Kenneth Yoder
Judy Randleman	Weiser	College of Idaho
Thomas H. Robb	Boise	Dr. Don Burwell
Dennis Roggenbuck	Boise	Dr. Leona Manke
Roberta L. Shea	Boise	Dr. Al McGlinsky
Shayna Sklar	Boise	Richard Widmayer
Mark Stevens	Homedale	

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Northern Region
Meeting Site: University of Idaho, Moscow

Kelley Blair	St. Maries
Pat Brown	Lewiston
Vicky m. Carter	Bonners Ferry
Samuel A. Cummings	St. Maries
Paul Currie	Kelloge
Veronica Doin	Post Falls
Linda Dunnam	Troy
Bob Grigg	Kelloge
Gaylord E. Harter	Wallace
Keyton Haye	Orofino
Kathy Hocking	Deary
Linda J. Kazda	Lewiston
Veneta Marks	Winchester
Gary Stanton	Coeur d' Alene
Dave Wright	Orofino

- University of Idaho
  - Dr. Judith Doerann
  - Dr. Demerise Hunter
  - Ms. Elinor L. Michel
  - Dr. Roger Norris
  - Ms. Dene Thomas
  - Dr. Larry Wriggle
- North Idaho College
  - Ms. Doryne Rogstad
- Lewis-Clark State College
  - Dr. Marvin DeLuga
  - Dr. Hugh Nichols, Dean
  - Dr. Reese Parker
  - Dr. Rex Tolman

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IDAHO NTE CORE BATTERY VALIDATION
JOB RELEVANCE AND KNOWLEDGE ESTIMATION

Test Area ______________________ Reviewer ______________________

Subtest ______________________ Site ______________________

Job Relevance (check one)

Item No.	Crucial	Important	Questionable	Not Relevant
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				

Knowledge Estimation Percent

(check one)

10	20	30	40	50	60	70	80	90	DNK	Bias

Job Relevance (check one)

Item No.	Crucial	Important	Question-able	Not Relevant
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				
45.				

Knowledge Estimation Percent
(check one)

10	20	30	40	50	60	70	80	90	DNK	Bias

Bias Comments:

Item No.	Impacted Category	Rationale

Appendix K

Job Relevance

Name ______________________________

IDAHO STANDARD SETTING ON THE NTE ESSAY

Are the writing skills tested through such an essay relevant to the writing skills needed to teach in the public schools of Idaho?

Yes ____ No ____

Comment if you wish.

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Page 1

IDAHO NTE CORE BATTERY VALIDATION
CONTENT REVIEW AND KNOWLEDGE ESTIMATION

Test Area ______________________ Reviewer ______________________

Subtest ______________________ Site ______________________

Opportunity to Acquire Knowledge

(check one)

Item No.	Yes	No	DNK
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			
27.			
28.			

Knowledge Estimation Percent

(check one)

10	20	30	40	50	60	70	80	90	DNK	Bias

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Page 2

Opportunity to Acquire Knowledge
(check one)

Item No.	Yes	No	DNK
29.			
30.			
31.			
32.			
33.			
34.			
35.			
36.			
37.			
38.			
39.			
40.			
41.			
42.			
43.			
44.			
45.			

Knowledge Estimation Percent
(check one)

10	20	30	40	50	60	70	80	90	DNK	Bias

Bias comments:

Item No. Impacted Category Rationale

Appendix M

Content Review

Name ______________________________

IDAHO STANDARD SETTING ON THE NTE ESSAY

Do you believe that those individuals graduated from an Idaho teacher preparation program would have had the opportunity to learn the writing skills necessary for writing on the topic?

Yes ____ No ____

Comment if you wish.

NTE Validity Study Content Description

(61) LISTENING

		Approximate % of Test
I.	Basic Comprehension of Message (includes paraphrasing message, understanding connotations of words, and summarizing major idea)	37
II.	Analysis of Message (includes identifying assumptions, drawing inferences, recognizing implications, and identifying speaker's tone)	30
III.	Evaluation of Message (includes identifying and evaluating logical structure, assessing appropriateness and effectiveness of supporting material, and evaluating effect of speaker's tone on an audience)	18
IV.	Feedback-Response (includes identifying appropriate responses to questions or dialogues)	15

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Appendix N
Page 2

NTE Validity Study Content Description

(62) READING

Approximate % of Test

I. Comprehension — 50

The ability to understand accurately and completely the explicit content of a written message

1. Main Idea
2. Detail
   e.g., Definition - word, phrase, etc.
   Supporting Ideas
3. Relationships
   e.g., Sequence
   Cause and Effect
4. Paraphrase/Summary

II. Analysis — 35

The ability to clarify a written message and to understand how it is organized and conveys its message

1. The writer's purpose
2. The writer's assumptions
3. The writer's attitude or tone
4. Implications of the message
   Inferences from the message
5. Fact vs. opinion in the message
6. Organization of the message
7. Use of language in the message
8. Application of elements in the message

III. Evaluation — 15

The ability to make reasoned qualitative judgments about the nature and merits of a written message

1. Emotional or manipulative aspects of the message
2. Strengths and/or weaknesses of the argument
3. Relevance and/or appropriateness of supporting evidence, arguments
4. Relation of the message to the audience and/or to the general universe of the topic

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NTE Validity Study Content Description

(64) WRITING--MULTIPLE CHOICE

	Approximate % of Test
I. Usage - including capitalization and punctuation, subject-verb agreement, verb form, pronoun problems, parallelism, diction, idiom, structural problems, and adjective-adverb confusion	55
II. Sentence Correction - including problems of coherence, word order, economy of statement, appropriateness of diction and choice of idiom, subordination of sentence elements, logical comparison structure, and clarity of modification and pronoun reference	45

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NTE Validity Study Content Description

(65) LITERATURE AND FINE ARTS

		Approximate % of Test
I.	Recognizing basic elements and components of works of literature and fine arts	29%
II.	Analyzing and interpreting works of literature and fine arts	54%
III.	Relating works of literature and fine arts to one another and to their social/historical context	17%

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NTE Core Battery Test

NTE Validity Study Content Description

(66) MATHEMATICS

		Approximate % of Test
I.	Has good number sense and understands how numbers behave	20%
II.	Understands and uses numbers in an appropriate way to quantify thinking	16%
III.	Recognizes and uses mathematical relationships	24%
IV.	Understands the mathematical basis of measurement	16%
V.	Understands deductive reasoning	12%
VI.	Can interpret graphic, symbolic, and verbal material	12%

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NTE CORE BATTERY TEST

NTE Validity Study Content Description

(67) SCIENCE

		Approximate % of Test
I.	Demonstrates understanding of energy relationships in both living and nonliving contexts	11%
II.	Demonstrates understanding of the significant features of living things	11%
III.	Demonstrates understanding of the fact that the operation of natural processes has resulted in organisms that fill a vast number of ecological niches and that these organisms are usually classified on a structural basis into a small number of categories, which facilitate the understanding and study of the organisms	11%
IV.	Demonstrates understanding of the relationships between living organisms, particularly humans, and the environment	11%
V.	Demonstrates understanding of the fact that Earth is both a part of the Universe and a body that has special characteristics	11%
VI.	Demonstrates understanding that all matter is composed of atoms, that atoms are divisible, and that atoms undergo combinations	11%
VII.	Demonstrates understanding of the forces that act on units of matter	11%
VIII.	Demonstrates understanding of the methods of science: the kinds of reasoning and the organization of information that have contributed to the development of science	11%
IX.	Demonstrates understanding of the role of science in securing and maintaining important human values	11%

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NTE Core Battery Test

NTE Validity Study Content Description

(68) SOCIAL STUDIES

		Approximate % of Test
I.	Understanding the forces which have influenced the evolution and current state of human culture and institutions	25%
II.	Understanding the behavior of individuals, of small groups, and of social institutions and the interrelationships among individuals, groups, and social institutions	25%
III.	Recognizing both the universal features of world culture and history, and the basic differences among cultural and national units	25%
IV.	Possessing the essential tools and the balanced perspective to analyze and make informed judgments about society	25%

The topic areas above will be related to the following specific subject matter: major U.S. historical and cultural events and movements; political institutions and political values; prominent characteristics of societies and cultures (e.g., patterns of social change, political organizations, political values); relationship between culture and individual (e.g., processes and patterns of prejudice, stereotyping, and discrimination); economic concepts and processes; geographical features and characteristics of human settlement and culture; and methodologies, methodological tools, and resources of social sciences.

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NTE Validity Study Content Description

(69) PROFESSIONAL KNOWLEDGE

		Approximate % of Test
I.	Planning objectives, diagnosing needs, identifying resources, and designing instruction	24%
II.	Implementing conditions that facilitate learning and instructional design	25%
III.	Evaluating student achievement and instructional effectiveness and using evaluation data to refine instruction	17%
IV.	Recognizing students' constitutional rights and state, federal, and judicial policy and the implications for classroom practice	9%
V.	Recognizing extra-classroom influences on teachers and students, including school policy, community expectations, the media, and children's developmental patterns	11%
VI.	Demonstrating knowledge of the teaching profession and of professional teaching behaviors	14%

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Page 1

IDAHO NTE CORE BATTERY VALIDATION

Emphasis Evaluation

Reviewer ____________________________

College/University __________________________ Site ________________________

Compared to our institutional program, the emphasis stated for the NTE core battery is as follows: (check one)

		Less	Same	More	DNK
Communication Skills					
Listening	I				
	II				
	III				
	IV				
Reading	I				
	II				
	III				
Writing	I				
	II				
General Knowledge					
Lit & Fine Arts	I				
	II				
	III				
Mathematics	I				
	II				
	III				
	IV				
	V				
	VI				
Science	I				
	II				
	III				
	IV				

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Page 2

Emphasis (cont.)

		Less	Same	More	DNK
Science	V				
	VI				
	VII				
	VIII				
	IX				
Social Studies	I				
	II				
	III				
	IV				
Professional Knowledge					
PK	I				
PK	II				
PK	III				
PK	IV				
PK	V				
PK	VI				

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Page 3

Emphasis (cont.)

I wish to comment on the NTE core battery emphasis. (Please use the content description terms and numerals as references)

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Page 4

Emphasis (cont.)

My institution places emphasis on content not found on the NTE core battery, such content described as follows:

Appendix P

Procedures for Transforming Mean Raw Percents to Mean Raw Scores

The Purpose of the transformation is to convert the *percentage* of minimally qualified examinees who are estimated to *know* correct answers into the *number* of items per subtest that would be marked correctly. Inherent in the conversion are several assumptions:

1. Examinees who do not know correct responses will guess correctly by a predictable amount.
2. Items found to be non-relevant (NR) or non-content appropriate (NCA) by the validation study will not be known by Idaho examinees.
3. NR and NCA items will be correctly guessed in predictable numbers.

Procedures applicable to the NTE Core Battery Tests are taken from the ETS draft *A Manual for Doing Content Validity Studies for NTE Tests,* Chapter IV. See the second chapter of this study for bibliographic citation.

The transformation is outlined as follows, with the Literature and Fine Arts subtest calculations exampled:

Part A: Knowledge Factor

1.	Determine the number of usable items (relevant and content appropriate) per subtest.	35 - 5 = 30
2.	Multiply subtest mean percentage by the number of usable items. (This is equal to adding means across usable items)	30(49.14)=1474.20
3.	Change to a proportion by multiplying by .01. This yields the number of items that would be correctly known.	.01(1474.20)=14.742

Part B: Guessing Factor for Those Not Knowing Correct Answers

1.	Calculate the percentage of examinees who would not know answers.	100-49.14 = 50.86%
2.	Multiply percent not knowing by the number of usable items. (Equal to adding across usable items)	30(50.86)=305.16
3.	Multiply step 2 by guessing probability (.25 for listening skills, .20 for all other five choice items).	.2(1525.80)=305.16

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Page 2

4. Change to proportion using .01 factor. This yields the number of usable items on subtest that would be correctly guessed. .01(305.16)=3.051

Part C: Guessing factor for NR and NCA items

1. Determine the number of different NR and NCA items on subtest. 5 items on Literature & Fine Arts

2. Multiply by guessing probability. This yields the number of NR and NCA items that examinees would guess correctly per subtest. .2(5) = 1.00

Part D: Factor for Non-Classified Items

Not required on Idaho study as all items were classified

Part E. Sum of parts A - D to arrive at Mean Raw Score for Subtest

A.	Knowledge factor	14.742
B.	Guessing factor	3.051
C.	NR/NCA guessing factor	1.000
D.	(not applicable)	------

Total Mean Raw Score for Literature and Fine Arts 18.793

The total represents the number of items on the subtest estimated to be correctly marked by examinees.

Appendix Q

NAME ____________________ SITE ____________________

IDAHO ESSAY CLASSIFICATION SHEET

Directions: Please check the appropriate column for each essay you review.

	Minimally Qualified or Better/Pass	Unqualified/ Fail		Minimally Qualified or Better/Pass	Unqualified/ Fail
A			Y		
B			Z		
C			AA		
D			BB		
E			CC		
F			DD		
G			EE		
H			FF		
I			GG		
J			HH		
K			II		
L			JJ		
M			KK		
N			LL		
O			MM		
P			NN		
Q			OO		
R			PP		
S			QQ		
T			RR		
U			SS		
V			TT		
W			UU		
X			VV		

Appendix R

NTE CORE BATTERY

3ENT SAMPLE ESSAY DESIGNATIONS

A	8
B	11
C	6
D	12
E	8
F	4
G	7
H	9
I	8
J	8
K	10
L	8
M	7
N	6
O	6
P	6
Q	4
R	9
S	9
T	9
U	6
V	6
W	9
X	3
Y	10
Z	10
AA	6
BB	4
CC	3
DD	6
EE	6
FF	5
GG	6
HH	5
II	10
JJ	7
KK	11
LL	4
MM	4
NN	5
OO	7
PP	10
QQ	4
RR	7
SS	5
TT	4
UU	4
VV	12
WW	4
XX	5
YY	11
ZZ	4
AAA	2
BBB	5
CCC	2
DDD	3
EEE	2
FFF	2
GGG	2
HHH	5
III	5
JJJ	5
KKK	5
LLL	11
MMM	3
NNN	11
OOO	3
PPP	12
QQQ	12
RRR	12

Topic:
Describe either a positive or negative incident that you have seen occur in a classroom setting. Explain how the experience or incident affected you or others and tell how you would encourage or discourage similar incidents in your own classroom.

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